UNITED STATES DEPARTMENT OF ENERGY

OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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ADVANCE NOTICE OF PROPOSED RULEMAKING

ALTERNATIVE FUEL TRANSPORTATION PROGRAM

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PUBLIC HEARING

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DOCKET NO. EE-RM-96-200

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SACRAMENTO, CALIFORNIA

SEPTEMBER 25, 1996

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PANEL MEMBERS:

DAVID RODGERS	Presiding Official Energy Policy Act Team Leader Office of Transportation Technologies
PAUL McARDLE	Economist Office of Policy and International Affairs
CLARA CHUN	California Clean Cities Program Manager DOE Oakland Site Office

I-N-D-E-X

I-N-D-E-X (CONTINUED)

P-R-O-C-E-E-D-I-N-G-S

MR. RODGERS: I feel like church, you know, come on down everybody. Come to the front rows. There's plenty of room up in front. How is this volume of the microphone. Okay?

AUDIENCE RESPONSE: Great. Beautiful.

MR. RODGERS: If you'll bear with me, I have a little boilerplate introduction that I'm required to read at these. Then we'll get going to the fun stuff.

Good morning and welcome. My name is David Rodgers. I'm the Energy Policy Act Team Leader at the Office of Transportation Technologies at the Department of Energy. On behalf of the Department, I'd like to thank you for taking time to participate in this public hearing concerning the Department's Alternative Fuel Transportation Program. And I know some of you have come from a long distance and I appreciate that.

The purpose of this hearing is to receive oral testimony from the public on the Department's Advance Notice of Proposed Rulemaking. Your comments

are not only appreciated, but they are essential to the process as we move forward.

This proposed rulemaking, which concerns Alternative Fueled Vehicle Acquisition Requirements for Private and Local Government Fleets, is required by the Energy Policy Act of 1992 and it begins a process to determine whether alternative fueled vehicle acquisition requirements for certain private and local government automobile fleets should be promulgated.

This advance notice also requests comments from the public on progress towards the goals set forth in section 502(b) of the Act, identifying the problems with achieving the goals, assessing the adequacy and practicability of and considering all actions necessary to meet the goals. The ANOPR is intended to stimulate comments that will inform the Department's decisions concerning future rulemaking actions and non-regulatory initiatives to promote alternative fuels and alternative fueled vehicles. If you have not already read the Federal Register notice from August 7, 1996, I urge you to do so. Copies are

available at the registration desk.

The comments received here today and those submitted during the written comment period will assist the Department in the rulemaking process. The written comment period ends November 5th, 1996. All written comments must be received by this date to ensure full consideration by DOE. The address for sending in comments is provided in the Federal Register notice.

As the Presiding Official for the hearing, I'd like to set forth the guidelines for conducting the hearing and provide other pertinent information. In approximately one week, a transcript of this hearing will be available for inspection and copying at the Department of Energy's Freedom of Information Reading Room. The address is specified in the Federal Register notice. In addition, anyone wishing to purchase a copy of the transcript may make their own arrangements with the transcribing reporter, who is up here to our right.

This will not be an evidentiary or judicial type of hearing. It will be conducted in

accordance with Section 553 of the Administrative Procedure Act, 5 U.S.C. Section 553 and Section 501 of the DOE Organization Act, Section 42 U.S.C. Section 7191. To provide the Department with as much pertinent information and as many views as can be reasonably obtained, and to enable interested parties to express their views, the hearing will be conducted in accordance with the following procedures:

Speakers will be called to testify in the order indicated on the agenda.

Speakers have been allotted ten minutes for their oral statements.

Anyone may make an unscheduled oral statement after all scheduled speakers have delivered their statements. Persons interested in making an unscheduled statement should submit their name to the registration desk before the conclusion of the last scheduled speaker.

And at the conclusion of all presentations, scheduled and unscheduled, speakers will be given the opportunity to make a rebuttal or clarifying statement, subject to time constraints, and

will be called in the order in which the initial statements were made. Persons interested in making such a statement should submit their name to the registration desk before the completion of the last speaker.

Questions will be asked only by members of the panel conducting the hearing.

As mentioned earlier, the close of the comment period is November 5th. All written comments received will be available for public inspection at the DOE Freedom of Information Reading Room in Washington, DC. That number is (202) 586-6020. The address for submitting written comments is provided in the Federal Register notice. Eight copies of the comments are requested. If you have any questions please see Andi Kasarsky at the registration desk.

Any person submitting information which you believe to be confidential and exempt by law from public disclosure should submit to the address above one complete copy and three copies from which information claimed to be confidential has been deleted. In accordance with the procedures

established at 10 CFR 1004.11, the Department of Energy shall make its own determination as to whether or not the information shall be exempt from public disclosure.

In keeping with the regulations of this facility, there will be no smoking in this room.

We appreciate very much the time and effort and you have taken in preparing your statements and are pleased to receive your comments and opinions. I would now like to introduce the other members of the panel. Joining me this morning is Paul McArdle, an Economist in the Department's Office of Policy and International Affairs, and Clara Chun, California Clean Cities Program Manager, from the Department's Oakland Site Office.

This introduction has been lengthy, but I hope useful. Now it is time to move on to the important business of the day, to listen to your comments.

And I apologize, there is one quick scheduling change. Sheron Gallop)) Galuppo, I'm sorry, needs to go back to the Assembly for some

important business. So she has agreed to go on first. Thank you very much Sheron.

MS. GALUPPO: And thank you every one for your indulgence. I appreciate it.

Good morning. My name is Sheron Galuppo. I'm here today on behalf of my boss, Assemblyman Dick Ackerman, who represents the 72nd Assembly District in Orange County, California. Our District lies within the South Coast Air Quality Management District.

Assembly Ackerman is familiar with government regulations and subsidies relating to alternative fuels and alternative fueled vehicles. It is his opinion that Orange County constituents will benefit from fewer regulations, not more.

At this time I'd like to submit a letter outlining the Assemblyman's concerns.

In conclusion, Assemblyman Ackerman urges you to reconsider imposing this unfunded fleet mandate on local government, the business community and our constituents.

If you have any questions, please feel free to call our Capitol office or the District

office. Thank you for your consideration.

MR. RODGERS: Thank you very much.

I have one more unscheduled speaker who needs to speak right away. Jerry Smith.

MR. SMITH: Thank you. My name is Jerry Smith. I work for Senator Haynes. He was unable to attend this morning and asked that I read a letter on his behalf.

Also not in attendance this morning are letters that I would like to submit for the record from legislators. They are the following: Assembly Utilities and Commerce Chair Mickey Conroy, Senator Maurice Johannesse, Assembly Majority Whip Steven Kuykendall, Assembly Consumer Protection Committee Chair Jim Morrissey, Assemblyman Bill Morrow, Assembly Majority Leader James Rogan and Senator Don Rogers.

The letter from Senator Haynes. Thank you for providing me with the opportunity to voice my thoughts concerning the proposed federal regulations which would require alternative fuel vehicle acquisitions by local government and certain private fleet operators.

I represent the Riverside area in the California State Senate. The folks in my district are, by and large, working families who have to struggle each day to keep their jobs, pay their taxes and make ends meeting. Since there are not a lot of big industries in our area, many people spend hours each day commuting to jobs in other counties, such as Orange, San Diego and Los angeles. The small and medium-sized businesses in the district are, like the rest of California's commercial sector, fighting stagnant revenues and rising costs which are compounded, to a great extent, by the unfriendly regulatory and tax climate of our state.

Our municipal economies are not exactly flourishing either. As a matter of fact, both the City and County of Riverside are operating at a deficit this year.

That's why your proposal to force local governments and certain private businesses to purchase alternative fuel vehicles for their fleets is of particular concern to me.

As a rule, alternative fuel vehicles are

significantly more expensive than their conventionally fueled counterparts. For example, an electric Ford Ranger pickup truck would cost about $34,000, with a range of only 50 miles on a charge. The same Ford Ranger pickup, powered by gasoline, would cost only about $11,000 and go 350 miles on a tank of gas.

Incremental costs are also higher for cars and trucks powered by other alternative fuels such as natural gas and methanol. It makes absolutely no sense, price-wise or performance-wise, for a private business or a local government to spend up to three times as much for a vehicle with a fraction of the performance capacity.

What does this mean for local governments? It means that for every dollar of extra cost applied to an alternative fueled vehicle purchase, a corresponding dollar must be cut from another municipal program. This could mean budget cuts for such essential services as law enforcement, public health, public safety and public transportation. Or, it could mean increasing the tax burden on an already over-taxed citizenry. I've described to you the

budget problems our area is experiencing. Your proposed fleet mandate could well be the straw that broke the camel's back.

For the private sector, your mandate means that the cost of doing business would go up. For every extra dollar spent on an alternative fuel vehicle, a dollar would have to be deducted from salaries, benefits or production costs. Employees would have to be laid off. If prices were raised dollar for dollar to absorb the higher vehicle cost, companies' sales would suffer, and thus jobs would be lost just the same.

Further, the automobile industry has already stated that it would probably have to increase the cost of conventional vehicles to keep the prices of alternative fuel vehicles artificially low. That means that the many commuters in my district would be faced with even higher costs for the gasoline-powered vehicles they must have to get to and from work. Considering the distances the commuters travel and the significantly higher cost of alternative fuel vehicles, even after factoring in the taxpayer and

consumer-funded subsidies, it is safe to assume that these people would never themselves drive AFVs but they would be paying for them. And that's simply))

simply is not acceptable.

I take small comfort in the free money offered through schemes like the Clean Cities Program, which merely take tax dollars from our communities and redistribute them in lesser amounts for the severely restricted purpose of propping up an alternative fuels program which would have no hope of surviving without such subsidies.

It would be far better for my constituents if they were allowed to keep more of their money in the first place, since they are certainly more in touch with their own needs than are appointed bureaucrats some 3,000 miles away in Washington, D.C.

As for local governments, surely the directly elected representatives of the community are in a far better position to determine where public dollars are most effectively spent. Better to return control of that money to local planners, who after all, are directly responsible for the well-being of

their cities.

I understand that you are contemplating this fleet mandate as a means of meeting your goal of displacing 30 percent of motor fuels by the year 2010. It should be apparent that if you doubt this quota would be achievable without forcing local governments and private businesses to purchase alternative fueled vehicles, it is probably the quota itself that is unreasonable, not the consumers who have no apparent interest in voluntarily meeting it.

I also question the assumption that this fleet mandate would somehow be good for the country's economic health. The best engine for economic growth is free and fair competition on a level playing field. These conditions are impossible when government presumes to pick winners and loser in the marketplace and stacks the deck accordingly. There are many examples of such expensive government gambles in our history, the disastrous Syn Fuels program of the 1980's is one of them.

If alternative fuels are indeed in demand, the free market will rise to create the supply. If

not, it would be poor public policy indeed to artificially create a market by picking the pockets of taxpayers and businesses, and setting product penetration quotas which cannot reasonably be met.

It is bad enough that California's economy is already buckling under the yoke of outrageous subsidies and mandates for alternative fuel vehicles. The last thing we need is the Department of Energy saddling us with yet another unfunded mandate which will provide no benefit for our citizens while siphoning off scarce tax dollars which are acutely needed for under-funded essential services.

I respectfully urge you to retire your proposed fleet mandate once and for all. The people of California simply cannot afford it.

Thank you very much.

MR. RODGERS: Thank you for a clear and direct letter.

With your indulgence, I have one more representative from the Assembly. Lara Diaz is here today.

MS. DIAZ: Good morning. I'm here on

behalf of Assemblyman Steve Baldwin, who was not able to make it here today but he has written a letter that I would like to read to you.

Ladies and gentlemen, I would like to take this opportunity to state for the record my continued opposition to any proposal that calls for either private sector businesses or local government agencies to adopt alternative fueled vehicle, AFV purchase quotas. There is no environmental justification for this unfunded mandate. Technological advances in the efficiency of conventional fuels and engines have dramatically reduced mobil source emissions. And as older, less clean vehicles are retired, many of our remaining emission problems will be retired with them.

Any first term economic student can tell you that if there is a demand for a product, the private sector will rush to meet it. A product for which no demand exists will languish on the shelf.

As far as alternative fueled vehicles are concerned, we clearly have a case of supply far exceeding demand. It is certainly not the intended purpose of government to act as a marketing agent for

unwanted products.

California already has one of the most oppressive taxation and regulatory climates in the nation. We have worked hard to change that and are finally beginning to recover from the worse recession this state has seen in decades. Please do not impeded that recovery with this multi-billion dollar unfunded mandate.

Thank you.

MR. RODGERS: Thank you very much.

And now we can proceed to our first scheduled speaker. I appreciate very much the time of the assembly representatives coming and providing their comments.

Mr. Chuck Imbrecht. Thanks Chuck.

MR. IMBRECHT: Good morning. Mr. Chairman and Members, I'm pleased to be here today to represent the California Energy Commission. As I'm sure you perhaps know, I formerly service as Co-Chair of the U.S. Alternative Fuels Council. It was under the aegis of the Department of Energy.

Recent events in the Middle East once

again underscore the need to find alternatives to petroleum for our nation's transportation needs. These alternatives can provide important market competition, thus reducing the adverse impacts of international political events on domestic prices. Without alternatives, our degree of dependency upon petroleum and exposure to price volatility, and fear of petroleum supply disruption will continue to weaken our economy.

One estimate of the cumulative cost to the United States due to oil price shocks and supply manipulation, and I might add this is generated by Oak Ridge National Laboratory, not by the Energy Commission, is that between 1972 and 1991 the U.S. lost something in the neighborhood of four trillion dollars.

As with the Energy Policy Act, it is the goal of the Commission to reduce dependence on imported oil by diversifying the state's transportation energy resources. California is nearly 100 percent dependent on petroleum to fuel its 23 million cars and trucks. Those 23 million vehicles

consume more than 15 billion gallons of petroleum fuel each year and account for about ten percent of the nation's vehicle population. And although the introduction of cleaner burning gasoline in California this year may help, certainly will help, improve our air quality, it does not go far enough in term of advancing energy diversity.

Since 1975, the Commission has been looking at ways to reduce the state's dependence on petroleum for its transportation needs. Whether politics or natural disasters cause a disruption in petroleum supplies, our experience reminds us that it is critical for the nation to achieve the oil displacement goals set forth in the Energy Policy Act. Although ambitious, the goals of ten percent by the year 2000 and 30 percent by 2010 should be pursued.

Generally speaking, we support EPACT's vehicle acquisition requirements. The Commission believes that DOE should pursue alternative fuel vehicle acquisition for private and municipal fleets which meet EPACT's definition of fleet.

The Commission also believes that the

placement of the acquisition requirements on various fleet markets makes efficient use of existing infrastructure, and allows for the gradual growth into future applications and other geographic regions.

However, I should emphasize that mandates without incentives are, in our judgment, doomed to fail. There must be incentives for fleets to buy both the alternative fuel vehicles and also to buy the fuel. In order for the nation to successfully achieve its energy security objectives, all components and partners of such an undertaking must be in place. For example, a wide variety of alternative fuel vehicles must be available and they must be competitively priced. And I think that underscores one of the points made by some of the comments you heard from our legislative members.

I'd like to congratulate the Ford Motor Company for being the first and at this point the only original equipment manufacturer to offer a full range of alternative fuel vehicles at or below market prices. Other original equipment manufacturers simply have to follow suit. Adequate fuel infrastructure

must be established in order to accommodate not only bi-fuel and flexible fuel, but dedicated alternative fuel vehicles as well. And fleets, generally recognized as the target market for AFVs, must be ready to accept responsibility for new and evolving technologies.

California, as you know, has extensive experience in AFV marketing and we have learned from that one thing that's very clear. Fleets and private purchasers of AFVs are seriously discouraged when faced with high incremental costs for vehicles, potentially reducing vehicle driving range, decreased flexibility in refueling, or added complexity in accessing fuel and paying for fuel purchases. These direct and indirect costs should be offset with incentive measures.

Petroleum Violation Escrow Account funds have been critical to the deployment of more than 15,000 flexible fuel vehicles and 6,000 natural gas vehicles and now some 200 electric vehicles in our state over the last ten years. Incentive funds must continue to be made available to help offset

incremental costs of many alternative fuel vehicles and to sustain the market development already occurring across the country. Future Department of Energy alternative fuel special project grant funds should be targeted toward vehicle and infrastructure incentives, and should be awarded where the most significant oil displacement goals can be achieved. The voluntary Clean Cities program should be given a priority in terms of competing for those grant funds.

The use of alternative fuels benefits the entire nation by reducing our dependence on foreign oil as well as improving our air quality. Hence, the nation should make this positive undertaking attractive to fleets through incentives; fleets should not be financially penalized for purchasing alternative fuel vehicles and using those fuels.

We also believe the federal government should lead by example by demonstrating the use of alternative fuels in its own vehicle fleet. In California we know that the 2,000 flexible fuel vehicles, which are operated by federal agencies, are only using alternative fuels in fact)) I'm sorry, are

using gasoline 90 to 95 percent of the time, when they clearly have the capability of using methanol and other alcohol fuels.

Although some of the FFVs were placed in areas where there was no fuel, the majority have convenient access to M85 or 80 percent methanol and, in fact, have access in many cases to free M85.

Another way fleets can benefit is through reduced fuel costs. Federal and state fuel excise taxes applied to the alternative fuels are already inconsistent when measured on an energy equivalent basis. When adjusted for energy content, the disparity is even greater, as evidenced by the extremes of no federal tax for electricity as a transportation fuel, and 28.2 cents of federal tax per energy equivalent gallon for liquefied natural gas.

The Commission believes that the Department of Energy should actively pursue a change in this federal taxation scheme to provide tax parity on an energy equivalent basis for all alternative fuels, as clearly should be the objective at the state level as well. In this way, all taxes would be fuel

neutral, an indicator of sound economics and equity. And if we're truly looking for that level playing field, now this is the way that we can insure that there are no hidden incentives or benefits for any fuel, be it gasoline or an alternative.

As a practical matter, creation of other incentives, vehicles and infrastructure, may be applied more straight- forwardly without the confusion of the built-in inequity of the current excise tax. In addition, some form of phase-in of this new, equitable tax structure would be helpful in encouraging early deployment of fuels and vehicles throughout the country.

Unfortunately it appears that the Department of Energy will have to delay the rulemaking for private and local government fleets. The federal fleet was unable to adhere to its own vehicle acquisition schedule, as I am sure you are aware. And since the state and fuel provider fleet rule is a year late, we do not have any data on the success or failure of a fleet rule. The delay of the 1999 all other fleets rule, will set the possible

implementation back in our judgment to about 2002.

The Commission believes that early adopters, or purchasers of alternative fuel vehicles during the 1999 to 2002 fleet rule delay time period, should be given extra credits for AFVs in order to sustain the early market development and vehicle commercialization momentum, which is now just being realized.

I want to thank you again for an opportunity to comment. The Commission would like to submit some additional comments of some detail, in terms of the specific questions which you posed in your public notice.

Thank you very much.

MR. RODGERS: Thank you very much, Chuck, and if you have a minute, I wanted to ask you a question. In the final regulation that covered state fleets and those of fuel providers, the Department was able to add some flexibility for medium duty and heavy vehicles to get some credit. So that fleets that did want to comply and that felt that a medium or a heavy duty vehicle made sense, were able to do so. Is it

your experience here in California that incentives for medium and heavy vehicles are also important to promoting alternative fuel use?

MR. IMBRECHT: I don't think there is any question about that and I think quite clearly that when we talk about incentives, we would be thinking about internalization of the overall cost of the transportation system. And I think in that context we can understand the economics much more clearly.

MR. RODGERS: I'd like to offer the rest of the folks on my panel, if they have any questions, Paul?

MR. McARDLE: Yes. Chuck, I have two quick questions. The first one involved your statement regarding BTU tax parity for the fuels. In your statement were you, in setting the tax parity, were you advocating setting it relative to the gasoline rate or perhaps a lower rate than gasoline as an incentive?

MR. IMBRECHT: Frankly, we have always advocated, as I said the ephemeral level playing field here in California. And so it should be equivalent to

the gasoline right.

MR. McARDLE: Okay.

MR. IMBRECHT: There should be neither an incentive or disincentive based upon taxation.

MR. McARDLE: Okay. The second question I had regarded your statement regarding extra credits for early adopters. Were you referring to tax credits or vehicle acquisition credits?

MR. IMBRECHT: Vehicle acquisition credits.

MR. McARDLE: Okay.

MR. RODGERS: Thanks very much for your time.

MR. IMBRECHT: Thank you.

MR. RODGERS: Our next speaker, if he's here, Mr. Greg Vlasek. Greg. Thank you.

MR. VLASEK: Thank you and good morning.

I am Greg Vlasek. I am the Executive Director of the California Natural Gas Vehicle Coalition. I'm here this morning speaking on behalf of fifteen members of our organization, as well as the 250 members of our national counterpart, the Natural

Gas Vehicle Coalition in Washington, D.C. Our members include vehicle manufacturers, natural gas vehicle component manufacturers, natural gas production, transmission and distribution companies, educational institutions, environmental and non-profit organizations, federal, state, local government agencies and fleet operators.

The Coalitions are dedicated to delivering the economic and environmental benefits of natural gas to the transportation fuel market and to building a permanent NGV infrastructure, including the installation of fueling stations, manufacturing NGVs, setting standards for our industry and providing the necessary training for a sustainable market.

The purpose my testimony today is to express our Coalitions' continuing support for the energy diversity goals embodied in the Energy Policy Act of 1992. I will also share our perspectives on the critical issues and actions that the Department must undertake now to ensure our nation's economic vitality and energy security in the 21st century and beyond.

I will not use my limited time today to cite the many facts and statistics that support the case for reducing our economic dependence on non-renewable foreign oil. These statistics have been offered before by many parties and will be presented again in our written comments by November 5th. I also will not address in any detail, although I'd be happy to answer your questions on the near-term prospects for growth in the AFV availability or fueling infrastructure.

I think we can all agree that the growth for)) or excuse me)) the growth that was envisioned by EPACT's framers is occurring at a distressingly slow pace, well behind our technological and industrial capability that would otherwise enable us to meet EPACT's goals, the very goals that comprise our standing national energy strategy. I believe very strongly that there are more fundamental issues that DOE, Congress and the American people must address to secure our energy future.

The concerns that led Congress and President Bush to enact EPACT in 1992, the first major

energy policy legislation in over fourteen years, are having an even greater destabilizing influence on our economy today. We are reminded continuously by world events that our economic vitality is ever more tied to the reliability of oil imports. Our dependency promises to continually worsen unless we make a decisive commitment to realign our energy policy for the future rather than relying on the partial solutions of the past. The statutory goals enacted by Congress framed a necessary and appropriate approach to reducing this country's dependency on foreign oil.

Others have testified and I am certain will testify today, that alternative fuel vehicles are an uneconomic solution in virtually all applications, and must not be subsidized on the backs of U.S. taxpayers. These statements ignore the imbedded costs of continued reliance on petroleum fuels and particularly petroleum imports. These imbedded costs include health expenditures related to urban air pollution, environmental mitigation, foreign energy security measures and trade imbalances that cost U.S. jobs.

The estimated cost to U.S. taxpayers of underwriting ongoing security exercises, environmental clean-ups and other benefits essential to maintaining the flow of imported oil vary widely. But it is generally agreed by studied observers to be at least $20 billion annually and could reach as high as a hundred billion dollars per year or more.

Clearly, American consumers have benefitted in some respects from our policy of relying on unrestrained imports of cheap oil, but they have never had the benefit of knowing what the true environmental and security costs are, nor have they had any real market alternative. Today, the opportunity to cultivate a cleaner, renewable energy portfolio that helps revitalize our domestic economy is at hand. DOE and Congress have an obligation to the American people to inform the public and to help cultivate the most promising choices for our energy and environmental future.

Let me state emphatically that our industry supports the use of incentives over mandates to effect EPACT's policy goals. We believe that

federal, state and local government fleets, as well as alternative fuel providers have a special role in leading the transportation sector to broader fuel diversity. Private fleets and individuals, however, should be offered economic incentives to seed their gradual transition to driving AFVs. Domestic fuel providers should also be provided incentives to stimulate production and distribution of domestic fuels. These incentives could be offset with disincentives for unabated increases in petroleum imports.

The fact remains that our multinational petroleum industry has earned and refined its expertise in domestic and worldwide energy distribution and marketing over 120 years. No one can expect our national energy goals to be attained without the support and constructive application of that expertise to the implementation of EPACT. I must take this opportunity to recognize two major oil companies, Amoco and Shell, for their recent acknowledgements of the market viability of natural gas. The former was recently announced as a partner

in the first liquefied natural gas fueling station to be built here in northern California. The latter has recently opened two new CNG retail fueling sites in a small but growing chain of Shell stations in southern California.

Building upon such constructive cooperation, we can develop and execute a consensus strategy for incentivizing energy diversification with domestic fuels. Realistically, this diversification can and should be expected to meet a one to two percent per year growth in transportation fuel demand, rather than displacing the existing demand for petroleum.

This strategy can, over time, significantly reduce, if not eliminate, the growth of our foreign oil dependence. And as global market developments unfold, alternative fuels can eventually reduce domestic and worldwide petroleum consumption rates. Indeed, in the final analysis, displacement of oil with renewable fuels is inevitable. The only real question is whether it is in the United States' best interests to begin an orderly diversification now or

to let a continuing string of strategic crises or the coming surge in world oil demand be the drivers towards alternative fuels.

It is our belief that DOE can best execute the goals of EPACT by collaborating with EPA, the Defense Department, GAO and other experts to accurately present to Congress and the American people the true cost per gallon or barrel of our foreign petroleum dependence. Only then can we execute an honest program of economic stimuli for domestic, alternative and renewable fuel production. This needs to happen now, not two, five, or ten years from now. The report to Congress on the status of EPACT implementation and consequent recommendations regarding incentives versus mandates, required by EPACT Section 509, we believe should be undertaken immediately.

For the petroleum industry to constructively participate in this process would serve their customers and shareholders well, and would ultimately make achieving EPACT's goals a much easier task. Toward that end, I urge that industry today to

join us in working with DOE, Congress and the alternative fuels industry on a domestic incentive program that will diversity our transportation fuel mix and earn their investors a fair return, while helping us to hit an energy home run for the United States.

Thank you for the opportunity to provide that statement today. I'd be happy to answer any questions you have.

MR. RODGERS: Thank you very much, Greg. You mentioned the status of technology, that in your view technology is ready, and it's really other things we need to focus on. Is it your experience, especially here in California, that operators of natural gas vehicles are finding the technology is available and it meets their needs?

MR. VLASEK: The technology in terms of both vehicles and fueling facilities, is well developed. It meets the most stringent of the air quality standards that are on the books, with the exception of the zero emission vehicle. In fact we are promoting optional standards, emission standards,

which companies like Honda, Ford, and so on, can target their vehicles to get even more low emissions credits in their mix of vehicles that they sell. And those would be based on the ability of the natural gas vehicles to meet those standards.

The real issue regarding natural gas vehicles and natural gas fueling infrastructure is simply the economies of scale. We don't have the)) either the demand or the volume yet to bring down the costs to where we know they can be brought down and made more accessible to the transportation sector and the driving public.

MR. RODGERS: Okay. Thank you. Paul, Clara?

MR. McARDLE: Yes. Greg, you mentioned in your testimony or statement rather, that your group favors incentives, both for vehicles and for refueling infrastructure for natural gas vehicles and other alternative fuel vehicles. Were there any particular incentive types you had in mind? Or was that something you wanted to open a dialogue with or what? Did you have something specific in mind?

MR. VLASEK: Well, certainly we want to open a dialogue. I think my feelings in that regard comport with Chairman Imbrecht's. And that is first we need to take a very close and honest look at the)) what the level of incentive needs to be to really level the playing field with imported petroleum.

A close examination of the incentives that are not necessarily captured in the price of petroleum is needed before we can determine what kind of incentive is fair. Subsequent to that, we would like to see dollar value incentives, either for infrastructure investments, or for investments in the vehicles. And again, there is conceivably ways that you could offset those by disincentives for petroleum importation, be above a certain threshold level that would also be established or should be established.

So I can't give you a whole lot of detail on how it would work. But the type of things, the incentives that are already in EPACT, taken a step further, I think basically is what we're looking for, what we think is fair. Thank you.

MR. McARDLE: Okay. Thank you.

MR. RODGERS: Thank you very much. Our next speak is Mary Wilson.

I just want to advise folks, you're welcome to stay after you give your statement. We'd love to have you here, listen all morning, but you don't have to. And we will be trying to stick to the agenda, so that if you need to leave the room for some reason and come back, don't worry, we'll still get to you.

Go ahead, Mary. Thank you.

MS. WILSON: Good morning. My name is Mary Wilson and I'm the Fleet Fuel Manager for J.E. DeWitt, Incorporated. We are a petroleum distributor located in South El Monte, just east of Los Angeles in the south Coast Air Basin, and an active member of CIOMA and PMAA. For the last 50 years, J.E. DeWitt has marketed a variety of petroleum products to commercial, industrial and retail accounts, ranging from bulk fuel to lubricants and greases.

J.E. DeWitt is a family business started by my grandfather in 1945. We count among our extended corporate family our 40 employees, and the

families they support in turn with their J.E. DeWitt paychecks. Your proposed alternative fuel fleet mandate is not only a direct threat to our family, but to our customers and the many families who depend on our industry for their livelihoods.

I want to make one thing clear from the outset. We believe in the free market and we believe in consumer choice. Our company has been competing with and participating in the alternative fuel market for quite some time now and do not begrudge an honest loss of business resulting from honest competition. If a customer believes that a different fuel better meets his specific needs at a price he can afford, so be it. Such a scenario only inspires us to search for ways we can improve our product, our prices and our customer services.

Your requirement that local governments and private businesses must buy alternative fuel vehicles is not about fair competition. It's not about what's best for cities or counties or school districts or mom-and-pop stores or big corporations. It's about stacking the deck in favor of certain

technologies which have been unable to attract customers on their own merits. Above all, it wastes scarce dollars.

By creating a guaranteed market for alternative fuel vehicles, you eliminate any incentive to make them better, cheaper or more acceptable to the end user. Why should they? They'll be able to sell them anyway. At the same time, you will force taxpayers, businesses and consumers to spend more than they ordinarily would on motor vehicles, thus cutting their budgets for vital public services, payrolls, capital investments, and the purchase of other goods and services.

I fail to see how this can possibly be good for our economy. In the long run alternative fuel vehicle manufacturers are going to have to compete with real customers at their real prices.

We have no philosophical opposition to alternative fuels, provided they are developed, marketed and sold via the voluntary investment of venture capitalists, or purchased willingly by customers who buy them without the help of government

mandates or subsidies and I'm speaking from experience.

In the late 1970s and early '80s, with the help of government tax subsidies, J.E. DeWitt took a corporate gamble on alternative fuels when we invested heavily in gasohol. This calculated risk was undertaken after lengthy research and consideration, and with a substantial outlay of our own capital, most of which we did not recover when the product failed to take off. When the subsidies diminished, so did the products' market. And to this day, we still have cases of unused gasohol decals and bumper stickers in our warehouse.

My point is this, the government could not guarantee a market for gasohol then, and they cannot guarantee a market for alternative fuels now, anymore than there is a guarantee that my customers will continue to buy our petroleum products if something better comes along.

In contrast, petroleum marketers answered another marketplace need on their own with much success. When California tightened its environmental

regulations concerning fuel storage, many of our customers found they could no longer afford to maintain their own private tanks. So the petroleum distributors got together and created commercial fueling networks for our customers' fleets. J.E. DeWitt currently owns seven sites in a network of over 800 such stations.

We invested our own money on this and did not receive any industry-specific tax breaks or subsidies to help us out. This is how it should be, since we'd be the ones profiting from the fuel dollars at those stations. If we wanted to sell our product, it was up to us to take responsibility for the product delivery system. It should be no different for the producers of alternative fuels and alternative fuel vehicles. If they expect to sell their products, they should be wiling to invest shareholder money to create a distribution system that will support those products. There is absolutely no justification for taxpayers to foot the bill for public AFV refueling stations.

J.E. DeWitt does not own enough vehicles

to be subject to your proposed AFV purchase quota, but our customers do. This mandate amounts to nothing more than government-sanctioned theft of business and revenues which we have worked over 50 years to build. And it doesn't stop there. There will be a wide ripple effect. If companies are mandated to spend more money on cars and trucks, they will have less money to support their payrolls and jobs will be lost. If they attempt to recover this higher vehicle cost by passing it along to their customers in the form of higher prices, fewer people will buy, or they will buy less, and again, revenues will decline and jobs will be lost.

The same principle applies to the public sector. If local governments have to pay higher prices for AFVs to replace the presently good conventional vehicles they have already purchased or would have purchased in the future, there's less money for other programs. And that means laying off of firefighters, law enforcement officers and health care workers. Or raising taxes, which doesn't seem to be popular or viable these days.

You can't just walk into this state, or any other for that matter, and force a complete upheaval of our purchasing decisions and our economy without leaving a trail of devastation in your wake. If you adopt this rule, you'll be taking food out of our mouths and security away from our families.

I sincerely hope you'll think twice before proceeding further.

MR. RODGERS: Thank you very much. I did have one question. In the Energy Policy Act, the goals of displacing petroleum make it clear that in addition to looking at alternative fuels that are used directly in vehicles, we can also look to those non-petroleum products that are used in motor fuel, such as the oxygenates or other products that go into reformulated gasoline. I was just wondering if you have had any experience marketing those reformulated gasoline products here in the California and if you think that that approach might be better, in your eyes, than promoting alternative fuel vehicles, for trying to reduce oil imports.

MS. WILSON: Yeah. At this point I really

can't comment on the oxygenates, but I'm sure there will probably be someone else who will be speaking. Okay.

MR. RODGERS: Okay. Thank you. Any questions?

MR. McARDLE: Yes, I just have one question.

MS. WILSON: Yes. Okay.

MR. McARDLE: And I don't want you to generalize to other petroleum marketers, but in your situation, if for instance one of these alternative fuels became a market success on its own, would companies like yourself go into distributing those fuels as well or would it depend on the fuel?

MS. WILSON: It would depend on the fuel and the viability and the infrastructure, which as of now there would be no reason and there's no)) we don't see anything standing out above the rest for us to put any capital into anything right now, other than our convention petroleum products.

MR. McARDLE: Okay.

MS. CHUN: Working in the conventional

petroleum products industry, do you think that it is feasible for an alternative fuel to actually succeed in a market that is, at the moment, significantly entrenched by the petroleum industry?

MS. WILSON: I think it's entrenched by conventional petroleum for a reason. And as I said, if my customers start purchasing other products because they find it better meets their needs, then that will be their choice, and it won't be mandated to them.

MR. RODGERS: Thank you very much for taking the time to comment.

MS. WILSON: Thank you.

MR. RODGERS: Our next speaker, Tom Austin.

MR. AUSTIN: Good morning. My name is Tom Austin. I am a Senior Partner at Sierra Research, a firm that specializes in air pollution-related research and regulatory issues. From 1975 to 1981 I was with the California Air Resources Board where I served as Executive Officer and prior to coming to California, I worked for the Environmental Protection

Agency's laboratory in Ann Arbor, Michigan, where I was responsible for vehicle testing and technology assessment. Throughout my work at EPA, the Air Resources Board, and Sierra Research, I participated in numerous studies of the effects of alternative fuels on vehicle emissions.

The principal point I'd like to make today is that requiring private and local government fleets to participate in the alternative fuel vehicle program will entail tremendous additional costs in California and nationally, with no significant benefit to air quality.

In 1975, under sponsorship of the Western States Petroleum Association, whom I am representing today, our firm conducted an analysis of the cost impact of the alternative fuel conversion program in California as mandated by EPACT. Based on sales estimates that were reported by the Department of Energy, we were able to estimate the number of alternative fuel vehicles that would have to be purchased in California over the period 1993 to 2010. Our survey of fleet operators resulted in estimates

that there would be approximately 1,000 electric vehicles purchased, but the vast majority of the alternative fuel vehicles would be fueled by compressed natural gas.

We estimated the average incremental cost of CNG-powered vehicles at $4,000 which represented a 50-50 split between OEM produced vehicles and conversions. I understand that currently you can purchase a CNG vehicle for less than that but it's because of subsidies that are being provided by the car companies.

As recently as yesterday, based on discussions we had with Ford Motor Company, there is no intention for those subsidies to be continued indefinitely.

The incremental costs that we estimated for electrical vehicle was $14,600, which was again based on a 50-50 split between purpose-built and converted conventional vehicles and we did a fairly detailed study of those costs under the sponsorship of the American Automobile Manufacturers Association.

Table 1 of my written statement summaries

the cost for vehicle price increases that we associated with the current program and the proposed expansion of the program.

For federal and state fleets and fuel providers, we are estimating that a total of 268,500 natural gas vehicles and 1,000 electric vehicles would be required over the 1993 to 2010 period. By expanding the scope of the program to include local government and private fleets, the number of vehicles required in California approaches one million and our estimate is that the increase in purchase price for these vehicles over that period, will be about 3.8 billion dollars.

There is also infrastructure costs associated with the alternatively fueled vehicle fleet mandate. We estimated the cost of new refueling stations for state, federal and fuel provider fleets at $154 million over the 1993 to 2010 time period. And if local government and private fleets are included, we estimated an additional $263 million in refueling stations costs would be added, for a total infrastructure of about $416 million. These costs are

based on the assumption that a typical fleet-size station will serve 305 vehicles and cost about $400,000 which we think is a conservative assumption.

There is also a loss in fuel tax revenue to the state associated with the program. We've estimated that when adjusted for the energy content, the lost revenues amount to $129 million at the federal level under the existing program, and they would increase to $187 million through 2010 if local government and private fleets are added. Lost state revenues we estimated at $136 million under the existing program, increasing to $194 million with expansion of the program. The total federal and state fuel tax revenues that would be lost we estimated to be as much as $380 million from 1993 to 2010 if all five types of fleets end up being included.

There is a second table in my written statement, which summarizes the effect of all of the cost categories that we considered. The total cost to California under the existing program affecting federal, state and fuel providers is estimated to be just over $1.5 billion. And adding local government

and private fleets, the total cost in the California is projected to increase to $4.6 billion. At the national level, we'd expect the total cost to be about six times higher.

Regarding air quality benefits, despite the fact that there are large costs associated with the fleet conversion program, we don't believe there will be any significant benefits in terms of air quality.

In California and nationally as well, emissions from new vehicles are determined by the standards to which they're certified. While natural gas fueled engines tend to produce lower emissions than gasoline fueled engines, vehicle manufacturers will use this advantage to meet the same standards that apply to gasoline powered vehicles with slightly less expensive control systems. For example, a manufacturer may decide to use compressed natural gas to power a vehicle designed to meet California's Ultra-Low Emission Vehicle standard without the use of an electrically heated catalyst. But by using an electrically heated catalyst technology, a gasoline-

powered vehicle could achieve the same standard.

The lack of emission benefits for alternative fuel vehicles also applies in cases where the exhaust of the vehicle has a lower reactivity. The California regulations give credit for lower reactivity and allow vehicles with lower reactivity exhaust to emit a higher mass of emissions. Even in cases where a manufacturer doesn't take advantage of the opportunity to emit higher emissions with relatively low exhaust reactivity, there are credits that are accumulated that can be transferred to other models or traded to other manufacturers. These credits will be not be used to reduce overall pollution, but will instead be consumed or used to offset higher emissions from other vehicles.

In conclusion, the existing form of the alternatively fueled vehicle conversion program is extremely expensive, $1.5 billion estimated costs in California through 2010, and it's resulting iin no significant emission benefits. If it is expanded to cover local government and private fleets, the cost will rise to nearly $4.6 billion and bring no

additional benefits in terms of air quality.

Thank you for your attention. I'd be pleased to respond to any questions.

MR. RODGERS: Thank you very much. This is a very good summary. Is it possible for us to obtain the full analysis? There's a lot of interesting fleet numbers here that are different than some of the numbers that we have generated. It might be helpful to compare those.

MR. AUSTIN: I'd be happy to provide it. As recently as yesterday, I went through the information we collected from DOE two years ago, which is what this analysis is based on, to confirm that the numbers I'd be presenting today were consistent with the information we collected at that time.

MR. RODGERS: Okay. It would be very helpful if you could provide that.

The other question I was going to ask was, did your analysis cover any of the energy security benefits of the alternative fuel programs, in addition to the air quality issues?

MR. AUSTIN: We did not attempt to address

what is often referred to as the energy security issue.

MR. RODGERS: Okay. Okay. Thank you very much. Questions?

MR. McARDLE: Yes. Tom, a couple of questions. I notice in the first page you're assuming an incremental cost of $4,000 for a CNG vehicle.

MR. AUSTIN: Right, right.

MR. McARDLE: And I notice that table only has CNG vehicles. So you're just assuming all CNG other than the EVs. Is that))

MR. AUSTIN: Yeah. Based on the fleet survey we did, there was some expression of interest in other vehicles. But so much of it was CNG that we decided to simplify the analysis, by assuming it was essentially all CNG, except for those 1,000 electric vehicles.

MR. McARDLE: Okay. Now, was the fourth)) now this is for 1993 through 2010.

MR. AUSTIN: Correct.

MR. McARDLE: Was that $4,000 incremental cost held constant throughout that time frame?

MR. AUSTIN: Yes, it was.

MR. McARDLE: So there is no recognition or belief that if, as these vehicle production rates went up, that there wouldn't be any change in the incremental cost of CNG vehicle.

MR. AUSTIN: It's a belief, rather than the lack of recognition.

MR. McARDLE: Okay. Okay. Let's see. On the infrastructure costs, and let me try to explain this. Is this)) this is not net infrastructure costs. In other words, since we have a market here that's growing, you did not try to net out any infrastructure costs that the petroleum industry would incur over that time frame, that instead of being invested in petroleum infrastructure, it's invested in CNG infrastructure.

MR. AUSTIN: When we did our interview with fleet operators, the impression we got is that they would end up having to make this level of investment in new infrastructure and that there wasn't going to be any significant benefit associated with netting out expansion that was planned for. Because

I think quite frankly what most of them told us, that there wasn't substantial expansion in their fleet size planned over this period.

MR. McARDLE: Okay. So you're looking at this as kind of a duplicative type investment?

MR. AUSTIN: Yes, yes.

MR. McARDLE: Okay. Lastly, I noticed that you have the infrastructure cost and the incremental vehicle cost, but I don't see anything on operating costs. Now CNG, in many places, it's priced lower than gasoline. Was there any attempt to net out that perhaps operating cost savings?

MR. AUSTIN: We did not. We tried to collect information on that. We got inconsistent answers. But when we try to put it in perspective, let's assume for the sake of argument, that the CNG were available at one-half of the true cost of gasoline on a BTU basis. Without accounting for the time value of money, which would be significant over the life of these vehicles, that would tend to reduce the operating cost of the vehicle by something in the neighborhood of $1,000 over a ten year, 100,000 mile,

vehicle lifetime. Which was relatively small compared to the increase in purchase price, which was an upfront cost.

MR. McARDLE: Okay. I think I have one more, then I think we can move on. It involves the environmental benefits. Now you assumed that these were ULEV vehicles, so that the CNG vehicle)) I mean you're comparing a CNG vehicle versus a)) CNG ULEV versus a gasoline ULEV. So you're)) I guess you're saying that because they're both ULEVs, there is no real big environmental benefit. Did you factor in perhaps evaporative emission benefits on the CNG side?

MR. AUSTIN: We did an analysis that looked at the theoretical differences in refueling and evaporative emission for CNG vehicles compared to gasoline vehicles. And arguably there would be some benefit associated with CNG when you account for those kind of changes. We chose not to address that for a variety of reasons. One reason is that not all of these vehicles are going to be OEM vehicles. And the experience in existing fleet operations, in our experience in this regard, is focused on what we have

learned from being involved in the vehicle inspection program in British Columbia. The experience there is that the CNG vehicles, the alternatively fueled vehicles in general are higher emitters than the gasoline vehicles that they replaced. Because they don't have OEM systems, they haven't been designed with the degree of reliability that people expect today from gasoline fuel cars.

And so when we looked at the data that were available at the time, it would show a net increase in emission for alternatively fueled vehicles. We're assuming there will be some of that in the future. There may be some offset associated with lower refueling emissions and we considered it a wash for the purposes of this analysis.

MR. McARDLE: But on the OEM vehicles, your judgment is that you won't get that effect? Like when you're referring to like a converted vehicle?

MR. AUSTIN: We believe the OEM CNG vehicles are likely to have lower refueling emissions. But in doing the analysis, we ended up concluding that the emission factors that are commonly used for the

gasoline vehicles aren't right. They exaggerate the true refueling emissions associated with gasoline vehicles, given the technology that's on the cars today and the systems that are used at California service stations.

MR. McARDLE: Okay. Thanks. I appreciate that.

MR. RODGERS: Clara.

MS. CHUN: Two questions. Do you)) can we get some information on that data about the exaggerated emissions of gasoline vehicles?

MR. AUSTIN: Yeah. I can provide you something on that.

MS. CHUN: And then secondly, in terms of air quality, obtaining air quality benefits, would you suggest that there is a role for the government to encourage the use of technologies, such as electrically heated catalysts for gasoline ULEV engines?

MR. AUSTIN: Definitely not. I mean that's a decision that I think is appropriately made in the marketplace. And any time you end up second-

guessing what's going to end up becoming the winning technology, you often push people down a path that's not optimum, either in terms of emissions control or in terms of cost. And cost is really important when you're talking about vehicle emissions. Because the most important thing we're doing in California today is turning the fleet over. And to the extent that there is a government mandate that says certain new cars are going to cost more, that suppresses fleet turnover.

And even though theoretically these more expensive new cars may look very clean, relative to new gasoline vehicles, if they cost more, they suppress fleet turnover and the net effect is higher emissions.

MS. CHUN: So the hope is basically to wait for continued fleet turnover, so that increased use of these newer technologies will eventually be brought into the fleets. Is that))

MR. AUSTIN: It's not a question of waiting for it, I mean that's a fact of life. That's what causes the air to get cleaner, is turning over

the fleet. It's also a fact that the fleet is not turning over as rapidly today as it was 15 years ago. And there have been a lot of studies done that show that the reason it's not turning over as fast is that cars cost more, relative to what they used to 15 years ago, for a variety of reasons. It's a tradeoff that's usually ignored in analyses of how a new vehicle with an alternatively fueled system compares to the emissions of a new vehicle with gasoline. If you don't factor in the cost, you miss the effects of fleet turnover, which ends up being very critical.

MR. RODGERS: One last question for you and thank you for your time. How would your analysis change if you included flexible fuel alcohol vehicles that have very little incremental cost and very little infrastructure development costs?

MR. AUSTIN: The main change would be that we would end up estimating emissions to be substantially higher. All of the experience that we have seen, what's really happening on the ground, is you don't find FFVs being run on methanol most of the time or if they are being used, if they are using

methanol, they don't use it all of the time. And when you switch back and forth between methanol and gasoline, that will happen, emissions go up dramatically. The read vapor pressure of methanol is relatively low, M85 is relatively low, the read vapor pressure of California phase two gasoline is relatively low. When you mix the two together, the vapor pressure of the mix is higher than either fuel separately and the emissions from the cars go up dramatically. And that's what's happening today and it's not being accounted for.

MR. RODGERS: What about the cost of the program, using the)) what would be the impact of including FFVs on the cost of the program?

MR. AUSTIN: The data we collected would indicate that fuel costs would certainly be higher and would be a factor that would have to considered. The cost of the vehicles would clearly be lower.

MR. RODGERS: Okay.

MR. AUSTIN: A relatively modest premium to compared to what you'd be paying for CNG.

MR. RODGERS: Okay. Thank you very much.

MR. AUSTIN: You're welcome.

MR. RODGERS: Our next speaker is Mr. Ray Lewis.

MR. LEWIS: Thank you. It's interesting to follow Tom in position. Many of the statements that Tom made about the more expensive vehicles and your question, and let's discuss the methanol side after we hear at least another view of the methanol, thank you also for coming to California where a lot of this got started. There has been a lot of progress made out here and it's important to get the views of the people who really got it started in California and I always have an honor to come back from Washington to do that.

I'm Ray Lewis. I'm President of the American Methanol Institute. We serve the trade association for the methanol industry and work for both methanol as an alternative fuel for vehicles, also a component for oxygenated and reformulated gasoline.

Today, methanol is primarily made from natural gas and carbon dioxide. In fact, methanol

producers throughout the United States used 194 trillion BTUs of domestic natural gas in '95. It can also be made from a variety of renewable feedstocks, municipal solid waste and even biomass crops.

In 1995, methanol production capacity from 17 plants in eight states 2.2 billion gallons. These plants supplied three-quarters of the U.S. demand. The remaining supply coming mostly from Canada with over a high)) places like Trinidad, Venezuela, Chile, got all but the remaining two percent.

The largest market for methanol in the U.S. by far is production of MTBE. Probably twice the next largest use of methanol. The energy information agency estimated 3.3 billion gallons of MTBE will be blended into clean-burning reformulated gasoline this year, requiring over 1.3 billion gallons of methanol.

MTBE is the most widely used oxygenate in reformulated gasoline, and is considered a replacement fuel under EPACT. In assessing the ability of alternative fuels to meet the year 2000 goals of displacing ten percent of the gasoline, the DOE estimated that oxygenates would provide nearly half of

the volume of these replacement fuels.

From this perspective, methanol industry is already making the largest contribution to achieving the goals of EPACT.

As an aside, we have this successful market today and it's been well-documented by ARCO Oil and others, as a direct result of California encouraging the use of M85 and the oil companies' perception that this was a competitive fuel and therefore voluntarily in California agreeing to clean up their gasoline.

The focus of today's hearings is centered on what we refer to as neat fuel applications. Since the mid-1980s methanol has been used as an alternative fuel in cars and buses across the country. But for methanol it all began right here in California.

As is the case with a host of energy and environmental issues, California has been the leader in developing and promoting the use of alternative fuel technologies. The M85 flexible fuel vehicle was proven out here first in California. Although we have to credit many in Detroit and other places, including

the EV on the street, the FFV on the street.

California and DOE's interest in developing alternative fuels has always been two-fold, cleaner air and improving our energy security. Methanol meets both of these criteria. Methanol fuels do burn cleaner and in the future even cleaner yet, and as I have pointed out, methanol is predominantly a North American non-petroleum fuel.

Today in California over 13,000 methanol FFVs serve in federal, state, municipal government fleets, corporate fleets, rental car fleets, and are driven by hundreds of individual consumers.

Recently, the Ford Motor Company announced that it would be selling its 1997 Taurus flexible fuel vehicle with a discounted price of $345 less than the comparable gasoline powered Taurus. Interesting to put that in context with what it would do with fleet turnovers and other things, as we get a fleet of vehicles on the road capable of running on alternative fuel for the next time we have a crisis in the country.

Fleet vehicles, no longer have to come up

with the extra cash, they actually get an incentive in that case from the free market.

To serve the methanol vehicles in California, an extensive network of 60 public methanol refueling stations stretches from Los Angeles to Sacramento, includes stations in Yosemite National Park. This methanol fueling infrastructure was established by the California Energy Commission, in cooperation with the state's major gasoline retailer. In addition, more than 50 private fueling stations are operated in California by individual fleet operators.

Outside of California, there is an additional 40 fueling stations located in 14 states and Canada. Not adequate but a good start. Methanol fueling stations are relatively inexpensive to build and operate. A below-ground conventional tank and fueling system can be installed for about $50,000, virtually the same as a gasoline station. Many fleet operators may prefer to install above-ground, at a cost of about $20,000. California has enacted a policy that allows)) requires people when they're replacing their underground tanks to have at least one

of those tanks methanol compatible. For those tanks, no more than about $5,000 is required to make that methanol compatible.

As a representative of the methanol industry, the central question here is, will there be adequate infrastructure in place between now and 2010 to serve the several million alternative fuel vehicles that could be needed to meet EPACT goals?

The DOE assessment concluded that methanol and propane appear to be the most economic fuels in its equal-tax case. Accounting for some 2.3 million barrels per day, or more than 85 percent of the total use of alternative fuels. That's a tall order.

From a supply perspective, the methanol industry has proven with the reformulated gasoline program that we can quickly gear up to meet large new markets. Reformulated gasoline today costs no more than two to three cents more than conventional gasoline at the pump. On the distribution side, the infrastructure costs for alcohol fuels, like methanol, are the least expensive of the alternative fuels. As stated, we can build them for about $50,000, compared

to say $250,000 to $500,000, which is about consistent with what you heard earlier, for a compressed natural gas station. As we learned in California, the best way to build methanol fueling stations is a partnership between government, the gasoline retailers and the methanol producers.

This experience should be used to serve in a national model. It all boils down to the question of priorities. For example, is it more effective to protect a continuing flow of imported oil, which produces an annual trade deficit of $65 billion, rather than investing in alternative fuels that can be produced in Texas, Oklahoma, Louisiana and even California?

Flexible fuel technology is proven. We know how to build the stations at a modest cost and the proof is in the fueling station manual, as provided by the California Energy Commission. I'll make this manual available for you and we can make others available if you need them.

If we are serious about encouraging the adoption of alternative fuels, the country must do

more than require that certain fleets purchase the alternative fuel vehicles to achieve the EPACT goal of 30 percent in 2010. We must all do more.

One of the ways public policy needs to be redirected is to encourage the expansion of alternative fuels to fix the inequitable tax treatment that penalizes many of the natural gas based fuels. At the pump, a gallon of gasoline has a federal excise tax of roughly 18.4 cents. On an energy equivalent basis, a gallon of methanol is taxed at 23.14.

On the other hand, compressed natural gas enjoys a federal tax of about 5.8 cents. If the goal is to stimulate a market for domestic natural gas, the methanol industry is already one of the largest customers of gas. As a fuel, methanol can be considered a liquefied natural gas that is available at ambient temperature and pressure.

If the DOE is looking for incentives to stimulate the adoption of alternative fuels, support for a more rational tax policy would be a big step in the right direction.

Here in California, the mileage equivalent

price of gasoline at the M85 pump is well within the rage of some regular and below the cost of premium, although it is a premium octane and premium environmental fuel.

For the fleet operator, there is a slight incremental cost associated with buying the fuel. However, the share of the incremental cost is the higher excise tax charged. A more rational tax policy would reduce that incremental cost.

With some alternative fuel vehicles, fleet operators often see higher incremental costs. They may have to pay extra for vehicles, fueling infrastructure, garage facility modifications, training and the fuel itself. These are the barriers to adoption they face. Many of the federal and state programs have been developed to overcome these hurdles.

On the vehicle side, the methanol Taurus actually costs less as we said. We are actively engaged with automakers to encourage a broader line of cars, vans, and trucks. A further consideration for fleet operators is a vehicle's resale value. Unlike

some alternatives, methanol FFVs retain their resale value.

In terms of infrastructure, methanol fueling stations have a very modest price tag. A modest, but fuel neutral, federal investment to stimulate the construction of alternative fuel stations would get a big bang for the buck with methanol.

To make fueling with alternative fuels easier, AMI is co-sponsoring a project with the California Energy Commission and the Society of Automotive Engineers to demonstrate innovative technology to control misfueling. This radio-frequency identification process would ensure that only methanol vehicles can fill up at a methanol pump, without the consumer having to be inconvenienced. This will go a long ways towards overcoming some of the barriers to the utilization and get some reliability in the system, and it could be used for other liquid alternative fuels also.

There are no changes required for garage facilities housing of the vehicles. The incremental

costs associated with methanol fuels can be reduced with a more rational policy as we said earlier. In addition, many state tax incentives tax methanol grossly unfairly and addressing these inequities would be very, very important.

One fleet operator that has recognized the benefits of methanol is Ashland Chemical, which has voluntarily began to replace their entire fleet. They will within two years have their full fleet of methanol, a full fleet of cars in California operating on methanol.

Looking toward the future, a good deal of work is centered here in California to develop the direct methanol fuel cell. And the infrastructure we're talking about today for M85 and M100 is crucial to being able to make the transition to even more economic and more environmentally friendly technology in the future. Methanol is an excellent hydrogen carrier that is viewed by many as an ideal fuel source for fuel cells. We are very optimistic that a good share of the 100,000 electric vehicles required for sale in 2003 could be powered by methanol in the very

near future.

In conclusion, to achieve the goals of EPACT, we have to make alternative fuels more attractive economically. Not just for fleet operators, but for everyone who drives a car, bus or truck. The methanol industry stands ready to assist, but we need the federal government to do its share too. Establishing a tax policy, as we said, fuel neutral support for infrastructure and vehicle development would provide needed incentives to stimulate this progress.

Ultimately, the expansion of alternative fuel use will only happen if both the buyer and the seller perceive and see real economic benefits. To achieve this, in the near future alternative fuels need to be incentivized, not merely mandated. To achieve the societal benefits of improved air quality and energy diversity, those pioneers putting alternative fuel vehicles on the street should receive our joint support.

Thank you.

MR. RODGERS: Thank you very much. You

mentioned something about the fuel cell and a fuel cell to my knowledge, has fuel economy advantages and greenhouse gas reduction advantages. And that the M85 infrastructure that is here in California and that would be needed to support alternative fuel vehicles, could help build an infrastructure that could support a fuel cell in the future. And I guess in that sense, I was wondering, do you consider the costs of implementing the FE programs, almost as an investment in an infrastructure to support a future transportation system that might be run on fuel cells?

MR. LEWIS: We see investment in the FFV vehicle, which is a negative investment, benefit the investment by the auto companies, but much of that has been done. We see the investment in the stations as an insurance policy, in case we have a major oil crisis. But it's an investment for the future to begin the transition to the fuel cell, which everyone has identified just about, will be in the future mix of vehicles but for the infrastructure problem. We have been)) we have heard vehicle manufacturers say within the last few days, that the infrastructure is

the only thing keeping them from going forward with the direct methanol fuel cell in commercial vehicles and that's an exciting opportunity.

We have got to somehow get the tax, the incentive programs, et cetera, to encourage products which have a higher)) a lower or a comparable infrastructure structure cost. We now have a situation where the low variable cost of some fuels, but the very high capital cost is being incentivized on the capital side, but in our case where we don't have the high capital cost, but we do have a variable cost problem, because of the less than optimized flexible vehicle, we have no mechanism whatsoever to benefit that. So it's not a balanced program.

MR. RODGERS: In that regard you mentioned tax parity, which I've heard a lot about here this morning, would that be one way to address the fuel incentives, to get people to use the alternative fuel once they have the vehicle?

MR. LEWIS: We feel strongly that all natural gas derived fuels should be taxes equally. There are four today, natural gas, compressed; natural

gas in a very cold state and liquefied; natural gas components, called propane; and natural gas with one oxygen added to it, called methanol. Those are all natural gas in various forms and are all taxed in great disparity. And we would like to see all those taxes taxed at the same rate on an energy equivalent basis.

Now energy equivalent to what? If you want to move the program quicker, then you make then energy equivalent to CNG today. If you want to move the program more modestly, you make then at worst, energy equivalent to gasoline and today many of the taxes are actually a disincentive and are taxed higher than gasoline. But by doing that, we don't get into a situation where we have a loser in the field, commercial, that we can't let go of because jobs would be lost and investments would be lost, et cetera. Because the market would determine which of the alternatives penetrates, rather than a government program.

MR. RODGERS: Paul.

MR. McARDLE: Yes. Ray, I have one

question regarding your statement on a fuel neutral federal investment to stimulate construction of all fuel)) refueling facilities. I guess you're advocating something more than what we have on the books now, which is the tax deduction for alternative fuel refueling infrastructure. And also I'm not sure, are you talking like a tax credit, something along those lines?

MR. LEWIS: Well, we think that the tax benefit that is tied to the incremental extra costs, benefits only some of the fuels and certainly gives no benefit to others.

We actually thought we were coming forward with a program that had a tax benefit for all alternatives. But at the last minute the changes in the legislation, it ended up being based on incremental costs. Which sounds logical when you think about, well, if it doesn't cost more, why give it anything? Except everyone has different problems and if you focus on the one that only one has and don't do something in balance, then you don't indeed have a fuel neutral policy.

MR. McARDLE: So something like a tax credit or something long those lines perhaps.

MR. LEWIS: Clearly if that tax credit is based on an equal credit per vehicle, then clearly that would be a major incentive.

MR. McARDLE: Okay. Thank you.

MR. RODGERS: Thank you very much.

MR. LEWIS: Thank you.

MR. RODGERS: Our next speaker is Paul Smith.

MR. SMITH: I'm Paul Smith of Policy Consulting Services. I'm a consultant to the American Automotive Leasing Association and to the United Parcel Service, UPS, and that's the role in which I'm here testifying today.

I wanted to thank you for the chance to be here and also to say more importantly that I appreciate the difficult task you and the Department face. You know, having to consider the implementation of a program, that quite frankly if brought before Congress today, would not be enacted. I'm fairly confident of that.

In addition, you're having to face the difficulty of taking an ill-advised program and having to find alternatives, if not, implementation of it to meet statutorily set goals.

Given the nature of your obligation, I wanted to speak to two things this morning. One is the role of mandates and secondly, the alternatives that can be brought to bear for it.

Apart from the very real particulars about timing, technology, infrastructure, cost, private fleet purchase mandates, as a general approach, are fundamentally flawed. To secure any significant alternative fuel presence in national transportation fuel policy, fleets have to be looked at as a means of demonstrating the viability, looking at the fleets by their sheer numbers, which very frequently are overstated. We ourselves are cautious in overstating their presence. But their direct impact is very insignificant.

The role that we foresee for fleets is one of being a conduit to reach the general public through a demonstration program. Having a demonstration

program that is directed by the government, against unwilling participants, has nothing but a failure at it destination.

We refer to this as the duck and the decoy syndrome. If you want to get ducks, you do not shoot the decoy. And most of the energies in the last eight years that our sector of the industry has faced, has been devoted to responding to the mandates. And only a small fraction of those energies have been devoted to exploring and looking for ways to make it work.

That's regrettable because I think there are economic as well as public policy values that can be pursued if it were otherwise.

Mandates have a)) against private fleets, have a multiplier effect. It was said earlier in the testimonies, I believe in Texas, that it is important to have the visibility of commercial vehicles traveling on the roads, to establish the acceptance and credibility of alternative fueled vehicles. There is a negative leverage that will happen if that is done pursuant to a mandate. Most of the commercial vehicles will make stops and calls of anywhere from 10

to 50 per day. It's not unusual for United Parcel Service to be visiting 60, 70 businesses during a single day. They have an ongoing business relationship with those, their customers, and the negative impact and leverage that can happen from having a program without voluntary participation is far more significant. It's a factor that is not quantifiable. It has not been factored in in the analyses that have been done, but it is still very real.

You can only look back to previous experiences of the government involvement in diesel vehicles on)) for light duty. As for fuel corporations, and we can list a few of them that have failed to take into account that for better or worse, it's attitude and perceptions that frequently will drive the markets, far more than the actual numbers. The stock market is, I think, a clear case of this.

There's two ways to approach a mandate. You can take the mandate and pursue it as a rigorous and a rigid program, which increases the inherent antagonism to the parties that are going to be subject

to it.

The other approach which frequently is being entertained, is to make it more flexible, more user friendly. User is not the right phrase. Subject friendly. And in doing so, create an even greater problem, because the twin)) the evil twin of a regulated program is the paperwork burdens that are associated with it.

When the Clean Air Act regulations were implemented under a program that was made by design to be as flexible and subject friendly as it could be, and more as a platform for the user of greater alternative fuels, than for the direct utilization of alternative fuels, the first regulation that was issued came out with a regulatory impact statement of 4100 hours per fleet, per year, for compliance. It covered fleets of ten vehicles or more.

So picture in your mind the fleet operator looking first at the acquisition costs, the operating costs, and the resale risks associated with it. And then second, looking at something that's going to take 4100 hours. That's more than two full-time

equivalent, per year, for implementation.

So having)) you know, while there's ways to make the mandates on their surface, less objectionable, the back end, the compliance questions are going to come in and bring in more difficulties because of the procedural burdens of monitoring, the paperwork, not only for the fleets but for their competitors. Who, since they're operating in a competitive environment, will be monitoring that. More work for lawyers and also for the government for the implementation.

This attitude towards mandates I hope is beginning to be shared within those within the Department. It is being shared by policy makers in other states. Under the Clean Air Act, 22 jurisdictions were subject to the Clean Fuel Fleet program. More than a majority of them have sought alternatives through the Section 182 opt-out program. Some of those in those opt-out programs have looked to go for more stringent programs.

In their consideration, a vast majority of them have rejected the use of looking at alternative

fuel mandates. And those that are still remaining are under serious reconsideration for it.

We feel, more importantly, that the major stakeholders, and in this case it would be the fuel providers and part of the fuel infrastructuring, that CNG in particular, have been now looking at more voluntary programs based upon incentives. And we're pleased that we have been working, fleet operators and fleet representatives, have been working with the natural gas industry in developing legislation that is being considered by Chairman Barton of the House Commerce Committee's Oversight Committee and Chairman of a Task Force directed by the Speaker to look at development of natural gas vehicles. And while the details have not been released, we understand that under that legislation, future mandates, the private fuel rulemaking in particular, would be eliminated. And that existing mandates would be sunsetted and that there would be a shift to looking at incentives.

This is important. There has been concepts and some mention today and elsewhere that mandates and incentives are the right combination. If

we can leave you with one thing, it is the thoughts that mandates work against incentives and it's the reason of their impact on human nature.

The existence of a second rulemaking will not result in any further development of alternative fuels and will work against any incentives that are put in place.

That cloud, which has been in presence since quite frankly 1977, when fleet mandates were considered as a transportation control measure under Section 108(f) has been lurking in the background for people considering the fact that if they enter into a voluntary relationship, they then are going to find themselves having committed to a mandatory one. And it has been a chilling effect and I can tell that to you on the basis of numerous conversations we've had with people are in the industry, in terms of wanting to step forward, without knowing what the secondary and tertiary effects are going to be of that participation.

Assuming that the mandates themselves could work as a concept, the EPACT private fuel

mandates are fundamentally flawed in another nature. Under Section 505 of the Act, the Act quite rightly looks at the three components of the transaction, which is the fuel provider, the equipment manufacturer, the vehicle manufacturer, and the fleet purchaser. Those are the three parties that need to be brought into the same regime in order to come out with a positive result.

Unfortunately the 502 mandates focus only on one of those three components. Don't read the lack of symmetry in my comments as assuming that I'm advocating expansion of the mandates. I'm not. But picture if you will, and just in the case of alternative fuel infrastructure, currently based upon numbers that we've seen from last year, for every fleet vehicle in the country)) for every 58 fleet vehicles in the country, there's one service station that can provide for diesel, gasoline, or a combination of both.

When looking at the number of alternative fuel facilities that are available, which is where the purchasing decisions will be made, not on the

projections of where they are later, we come to nearly 12,000 vehicles for every available alternative fuel refueling site. Not taking into account hours of availability, service associated with it, and locations.

What can be done if alternative fuels can be advanced? The first would be is to eliminate the first barrier to the first incentive, the first barrier to be removed, we would advocate is the elimination of the mandates. They act as a disincentive. And before steps are taken to move to incentives, we would urge you to eliminate that disincentive. I know it's not within your power, other than through this rulemaking proceeding with regards to this one, and the window that comes up, but I believe that there is other avenues. That that policy view that could be advocated that would involve the Department.

I think the tax credits and similar financial incentives are obvious and they have been discussed elsewhere. There's other incentives that can be approached. This is just a sample, not an

enumeration of them.

This theory that was mentioned earlier today, about the differential on tax treatment, at the federal level alone counts for about ten cents per gallon. And that ten cents, for astute purchases, which we would hope all commercial fleet operators operate under, it's our expectation and it's been the experience, is never quantified into that purchase decision. It should be. But when an astute purchaser asked the question and we're frequently asked that, what is the long-term viability of that differential? The answer is, we do not know.

When asked of the Department of Treasury or to the Transportation Department, will that differential in taxation on fuel use remain? And they said, and the answer is, no. We cannot commit. And yet in the case, for example of the United Parcel Service, they're making decisions now for the year 2001. They're putting)) they're making decisions now for vehicles that will be on the road in the year 2020.

So taking the approximately $1,000)) or

$100 per year differential that that ten cents constitutes, puts you into a situation where it's lost. The government doesn't get the revenue and yet it can't be quantified in the decision making about purchasing fleet vehicles.

Operational incentives are also available that have not been fully looked at. And understand even in California, as we speak, the decision about an HOV lane exemption for LEVs is under consideration by the governor and may well not survive his signature.

Green curbs for preferential parking and loading. HOV lane operating rights, preferential lanes for bridge and tunnel tolls are all inexpensive ways that can be then quantified to make and result in an economically sound decision.

One question is asked, why can't these be merely passed on to our consumers? That was in the discussions in 1988 when the issue first came up in the Clean Air Act and again in '92 in EPACT. The fact is, is that the consumers see no direct value in it. Fleets do. Fleets have been sold on the concept that alternative fuels have virtues in the public policy

arena. We do not see the way in which they currently are economic. The way in which they could be economic without the need for financial subsidy would be is if the consumers of our services and goods would be able to quantify and take that into account and purchase on the basis of that. But internal studies have indicated that there is no market for that.

The value of a service repairman showing up in a conventional fuel vehicle versus one that is an alternative fuel, is there is no quantifiable distinction in value. Until that time comes, which is a public relations and marketing challenge for that, you know, for the advocates of alternative fuels, that the individual competitors cannot engage in. It has not worked. There has been some efforts to try for it.

So that leads you to the question of, if it must be done, there must be some form of operational incentives, or financial incentives, they need not have to be high cost. They can be ones that can be developed at lower cost.

But first and foremost we would recommend

the establishment of certainty about the state of the policy. I think the elimination of the cloud of future mandates, not only in this series but in the second rulemaking should be addressed.

Thank you very much and I'll entertain any questions.

MR. RODGERS: Thank you very much. You mentioned the government promotion of light-duty diesel vehicles I believe earlier.

MR. SMITH: Yes.

MR. RODGERS: I'm not personally familiar with that. Would you be able to submit or just send us some documentation on that?

MR. SMITH: Sure.

MR. RODGERS: That'd be great.

MR. SMITH: I'd be happy to provide that for the record.

MR. RODGERS: Thank you. Paul.

MR. McARDLE: Yes. Just one question. Paul, it seems like you're saying that, one of the things you're saying is that the government has to be more clear and direct about the long-term viability of

incentives as well, for fleets to take advantage of them. Because there's this uncertainty that we're going to create an incentive, then two years later we're going to do away with it. Is that kind of what you're saying on the incentive side?

MR. SMITH: That's)) yes. But with the caveat that we understand that at a certain critical mass, the market has to be sustainable and should be sustainable.

MR. McARDLE: Right.

MR. SMITH: That you don't get yourself augured into a permanent subsidy arrangement.

MR. McARDLE: Right.

MR. SMITH: I think the two lines would cross and I would suspect it's going to cross at anywhere from seven to ten percent of the market base.

MR. McARDLE: Okay. Thank you.

MR. RODGERS: Clara.

MS. CHUN: Can you suggest ways that the government can perhaps afford tax credits or financial incentives, the costs of providing financial incentives?

MR. SMITH: I'm sorry. I could not hear that.

MS. CHUN: I'm sorry. Can you suggest ways that perhaps the government can provide financial incentives without, you know, without the loss of costs incurred by providing those financial incentives for purchasing vehicles or putting in fueling stations?

MR. McARDLE: Sure. We'd be happy to. One clear example is the question of, you know, the largest component of cost of the owner is depreciation. And the single largest factor in that depreciation is the residual value at the end of the useful life, which averages around 33 months.

So establishing)) and right now, we cannot tell you that there's any premium on a resale vehicle that is alternative fueled. The experience tends to be that they are decommissioned as alternative fuel vehicles and reconfigured back as conventional fuel. So that's an additional cost that's added on to it.

A low cost easy way to establish a

financial incentive would be, is to bolster that market. Establishing a certainty at the end of the lease, not just the enticement at the beginning. And the way to do that would be to have alternative fuel vehicles that come off of first usage after the 33 months, that have a useful life of)) the industry seems to indicate about 12 to 16 years, to have those 33 month vehicles be in line for procurement for vehicles for)) because there is an immense amount of useful life left, if the government took credit for acquisition of secondary)) establishing essentially a secondary market, it would do much to spur the up-front decisions that are needed. Rather than putting the government purchases in competition for a scarce number of vehicles that are out there. If again, the object is to try to spur a viable long-term market in the general population.

MR. RODGERS: Thank you very much. Our next speaker is Janis Christensen. And I just want to indicate that we're running about a half hour behind schedule, primarily due to long-winded questions from the panel, including myself. But we will get to

everybody that's on the agenda and any unscheduled speakers. So please bear with us and thank you very much.

Please proceed Janis.

MS. CHRISTENSEN: Are you asking me to speak fast, David?

MR. RODGERS: Not at all.

MS. CHRISTENSEN: Good morning. Thank you for the opportunity to participate in this hearing. I am Janis Christensen, the Manager of Fleet and Employee Transportation for Experian, formerly TRW Information Systems. I am here today to share with you the progress that the California Members of the National Association of Fleet Administrators, NAFA, have made in advancing alternative fuels technology.

NAFA is the association of professional fleet managers. Our 2,000 members manage more than 2.7 million vehicles, vans and medium/light duty vehicles for corporations, utilities and government agencies.

I currently manage a fleet of more than 400 vehicles. We have voluntarily operated a small

number of AFVs in our fleet since the early introduction of OEM M85 FFVs back in 1992. Methanol vehicles were driven by our sales representatives and company-sponsored car pool vehicles. One of these original vehicles is still in use today. Coincidentally, on the day that chrysler withdrew from the CNG market, I was in the process of placing an order for a CNG mini-van to be used in my van pool fleet. Since Chrysler was the only manufacturer offering the mini-van AFV, I was out of luck. I will agree with the statement that Chuck Imbrecht made earlier today that a wide variety of vehicles of AFVs must be available. And I too applaud Ford for being very out in the forefront of the market. However, once again this year we were unable to put the only M85 FFV on our selector list because it's not available at the introduction of the model year.

We're hoping to place an advanced battery EV in our fleet for ride share employees as a demonstration vehicle sometime in 1997. We're hoping that the manufacturers will work with us, even though we're only interested in one vehicle, when naturally

the manufacturers are interested in selling a larger quantity.

Both my newly created company, Experian, and our parent TRW, have voluntarily supported the use of alternative fuels when and where appropriate to do so.

Personally, I have been very active, along with my NAFA colleagues, to seek a sensible and practical introduction of alternative fuels into the market. I chaired NAFA's Alternative Fuels Task Force, when it was first created, to respond to Southern California's alternative fuel mandates in the late 1980s, and I have worked on a variety of federal, state and local committees in search of this objective.

Fleets support the development of alternative fuels. Fleets have been studying and testing alternative fuels for years. Alternative fuels are already in use in many U.S. and Canadian fleets. Because of EPACT, the Clean Air Act and other similar initiatives, many fleets are testing new vehicle technologies and their experience is expanding

the available information base.

NAFA and its members support the goals of the Energy Policy Act and have been working diligently to make it work. At the national level, we have actively cooperated with the Department of Energy, serving on committees which have developed excellent information materials. NAFA has welcomed DOE speakers at chapter meetings, and DOE has participated in NAFA's annual conference. NAFA has supported DOE's alternative fuels hotline and has referred fleet managers to this valuable resource. We have reprinted DOE materials and distributed them to thousands of fleet managers.

In California we have had a hands-on-role in working with the California Air Resources Board, the energy Commission, and the Air Quality Districts to test fuels and vehicles to create a data base of reliable information.

A special NAFA task force, the Alternative Fuels Advisory Committee, meets monthly with the South Coast Air Quality Management District. This committee works in partnership with the AQMD to advance the use

of AFVs in Southern California.

Fleet managers participated in a task force to review rideshare regulations and credits to encourage the use of AFVs.

Fleet managers participated as a member of the Air Resources Board Advisory Committee for the introduction of cleaner burning gasoline to the entire California market. Our efforts included identifying public and private fleets to conduct real-world tests and work on the development and distribution of information to fleets.

NAFA representatives meet regularly with the ARB to involve fleets in the testing of advanced technology electric vehicles.

We endorsed and worked for approval of Rule 1612 by the South Coast Air Quality District Board of Directors. Rule 1612 provides credits to companies that use AFVs. As NAFA said at the time, "Mobile Source Reduction Credits can be a powerful incentive to voluntarily acquire AFVs."

We have worked with the Air Resources Board on Mobile Source Emission Reduction Credits to

encourage companies to add low-emission AFVs to their fleets.

With the cooperation of the California Energy Commission, NAFA surveyed every fleet known to operate methanol flexible fueled vehicles to learn the level of satisfaction of the fleets and their drivers.

Our efforts, and the programs of ARB, the Energy Commission, the Air Quality Districts are focused on the goal of advancing AFV technology, building the infrastructure and putting AFVs on the road.

This is all being done without fleet purchase mandates. In California, fleets are partners in reducing air quality and establishing energy security. The South Coast Air Quality Management District, in fact, may have been the first agent, federal or state, to suggest fleet mandates. But today, the District has moved away from the command and control approach to alternative fuels. In a 1995 document, South Coast makes the following statement:

"The District encourages fleet operators to consider, and, if practical, to begin incorporating

alternative fuels into their day-to-day operations. There have been many success stories and some failures, but each effort helps the burgeoning alternatives fuels program to improve and evolve."

Mandates have not been the answer in California and they are not the answer in achieving the goals of the Energy Policy Act.

The command-and-control approach of mandates does not address the major question: how to eliminate the barriers that exist to widespread use of AFVs. Mandates have not and will not reduce the cost of vehicles, build more fueling stations or increase the driving range of vehicles.

Mandates will not convince companies and government agencies to purchase a great number of vehicles that cost more, have a reduced driving range, require a search for refueling, and have less resale value. The federal fleet has not met the mandates of the Act and the Executive Order because of higher vehicle costs, limited vehicle availability and a lack of infrastructure.

Mandates that are designed to create

markets will not encourage the acceptance of AFVs by consumers. The NGV Industry Strategy targets high fuel-use vehicles and concentrates the infrastructure on open access fueling stations, where fuels can be purchased through a card lock system and on-site fueling stations for fleets, such as transit, school buses, and forklifts. Inherent in the NGV marketing strategy is the realization that AFVs are not economical or practical in many commercial fleet and consumer applications.

In conclusion, mandates are not the solution to meeting the goals of the Energy Policy Act. The solution, as evidenced here in California, is for everyone to work in a partnership to overcome the barriers and to reach the desired goals.

We urge DOE to look at alternatives to mandates. At the first hearing in Dallas, Chris Amos, the fleet manager for the City of St. Louis, asked DOE to say no to mandates and to jump ahead to Section 509 of EPACT. This section of the Act says to DOE that if mandates are not the answer, move forward to develop recommendations for incentives applying to fuel

suppliers, vehicle manufacturers, fleets and other motorists. I too ask you to jump ahead and to move the process forward.

We urge the Department of Energy not to impose mandates, but to foster a voluntary partnership that builds on the positive results of California and the success of DOE's Clean Cities Program. This partnership should have three objectives.

1. Develop economic and other incentives to overcome barriers, such as vehicle cost, infrastructure and range.

2. Move the AFV technology beyond the experimental stage and to the stage where advanced technologies are feasible and available, such as advanced battery technology for EVs.

3. A market-based, rather than a command-and-control approach, to meeting the goals of EPACT.

Fleets will work with you on this partnership.

With that, I will be glad to answer any questions.

MR. RODGERS: Thank you. Paul.

MR. McARDLE: Yes. I had one thing I saw. And that was you said you had created data working with CARB, the Energy Commission and Air Quality Districts to test the fuels and vehicles to create a database of reliable information. Is that available in any shape or form?

MS. CHRISTENSEN: Um-hmm. Yeah, absolutely. There was a study that we did, oh, maybe about three or four years ago on the methanol, which can be made available, on the methanol vehicles in California. And we shared our studies and our research with DOE, as far as the publications that they have put out.

MR. McARDLE: Okay. So, that's been available previously then.

MS. CHRISTENSEN: Um-hmm.

MR. RODGERS: If)) I think, I imagine so. But we'll find out and we'll get it to you, Paul.

MS. CHRISTENSEN: Yeah.

MR. McARDLE: Okay. Thank you.

MS. CHRISTENSEN: Okay.

MR. RODGERS: Thank you very much, Janis.

It's good to see you again.

MS. CHRISTENSEN: Thank you.

MR. RODGERS: Our next speaker is George Wilson.

MR. WILSON: Thank you and good morning. I am pleased to have an opportunity to provide comments to the Department of Energy's Advanced Notice of Rulemaking Program.

My name is George Wilson. I'm the Fleet Manager for Bank of America. I am also a past President of the Alternative Fuels Task Force for NAFA and I participate a lot in California in many of the hearings relating to mandates.

We have experimented for some time with alternative fuels at Bank of America. I feel compelled to provide comments on the rule as it applies to private fleets. Just to describe our involvement in alternative fuels, we have had over 350 methanol vehicles and over 20 CNG vehicles in the past ten years.

Today we are operating 14 CNG vehicles and one electric shuttle bus.

We would encourage the Department of Energy to withdraw from its efforts to impose a mandate in 1998 or for model year 1999 to private and municipal fleets.

Today we have neither the fueling infrastructure nor an appropriate mix of vehicles to adequately populate fleets with viable vehicles for the mission. Furthermore, mandates are a bad idea for fleets and only add to the economic burden of a regulated environment.

What's our overall impression of alternative fuel vehicles? Our belief is that the concept of providing an alternative to gasoline to promote energy security, is a good idea. The environmental benefits of using fuel that adds to the reduction of smog and other environmentally hazardous conditions, is also a plus. To that degree, we have included in our operation some of the alternative fueled vehicles to test their application and usefulness in our fleet.

While we know the alternative fuel industry is still in its infancy compared to gasoline,

we also know many improvements and technology breakthroughs are yet to come for alternative fuels. So to say the jury is still out is an understatement.

Our testing in our experience, has come with the best of intentions to understand, to promote and watch for improvements in the arena of alternative fuel. What's in the way? Mandates. Mandates breed the command-and-control philosophy that stifles the creative and consensus results that we all want to achieve.

What has really torpedoed most of this progress that we've witnessed so far, are the agencies bent on adopting mandates and requirements in this arena.

Our first experience started with an Air Direct here in California, with the authority from the California State Health & Safety Code. They began to dictate through their rulemaking process, the purchase of reduced emission vehicles for all fleets with ten or more vehicles. At the time of the mandate, the only reduced emission vehicle at the time was the Ford Taurus FFV. That Ford Taurus had no application in

our fleet, but it was suggested during the hearings that we just comply with the mandate and purchase that fuel. Such a position builds the walls and not the bridges required to get from here to there.

To make matters worse, the District would only accept vehicles that are certified by CARB. I'm not sure if you're familiar, but here in California in order to get the credit for vehicles, they have to be part of the TLEV, or ULEV, or LEV or ZEV. That put a strain on the people that were the kit manufacturers, because it takes a lot to get the kits certified. So fleet managers were tossed between what's the right thing to go to, the cheaper more economical, convert a vehicle or buy OEM.

For all the CNG vehicles that we've purchased, we've had to add an extra tank just to accomplish our mission. And of course this limits some of our carrying capacity. So there's challenges with CNG vehicles.

And methanol, and I think the gentleman, Ray, spoke earlier about the cost and it may be the taxes that influence this, but we see a much higher

cost in operating methanol vehicles.

Our experience with the electric bus, with electric vehicles is limited to the shuttle bus. But I can assure you that this is the bleeding edge technology versus leading edge, because it's been quite a struggle. And for sure imposing mandates with electric vehicles surely is not appropriate this time.

Our fleet is not capable of being centrally fueled. There is some discussion of what makes a fleet centrally fueled. We rely on an outside fueling station. It's pretty tough to get alternative fuel, I can tell you. Even in places like San Francisco, where you think it's very appropriate, it's sometimes a struggle, especially on weekends and holidays.

In short, we believe mandates are not the solution for private fleets. Our vehicles are fairly current in the model year scenario and take advantage of all the technologies to reduce smog and help the environment and achieve optimum fuel economy. This is probably the norm with the majority of fleet vehicles impacted by the pending regulation.

Our experimentation has been with good intentions and a cautious eye out on economic implications. Mandates throw out economic considerations and bad choices are the most common outcome.

Our fleet uses compact vehicles and heretofore the OEMs have not concentrated their strategies on small compact-type vehicles, that's the Escorts, the Cavaliers, the Neons, as they build alternative fuels. We use the vehicles for carrying small packages and only we know that Honda with their little Civic CNG is the only one that fits in that category.

DOE can and should concentrate on and promote the incentive side of the initiative to secure energy independence and a cleaner environment. To this degree, demonstration programs that result in an economic benefit for private and municipal fleets will get you the best bang for your buck.

Your Clean Cities Program is a good example of encouraging the use and providing a source of information, experience and knowledge for fleet

managers. That program involves interested fleets and fuel providers with common objectives. The program lacks funding for events and incentives for potential alternative fuel vehicle purchases. And this position can be changed by DOE to encourage more fleets to get involved.

In closing, I agree with my counterparts in NAFA, down there in Texas, and also Janis, that you ought to refer to number 509. And in closing, I hope that you do nothing else with the mandate. Thank you. Any questions?

MR. RODGERS: Thank you.

MR. McARDLE: I don't have any.

MR. RODGERS: Thank you, George.

MR. WILSON: Thank you, Dave.

MR. RODGERS: Our next speaker is Windell Mitchell.

MR. MITCHELL: Good morning.

MR. RODGERS: Good morning.

MR. MITCHELL: My name is Windell T. Mitchell and I would like to give you some information about my background. I am the Fleet Manager of King

County in the State of Washington. I received a Masters Degree in Business Administration from the University of Washington and I am the Western Region Trustee for the National Association of Fleet Administrators. I have served on several boards, including the Governor's Motor Vehicle Advisory Committee for the State of Washington. I have served in leadership positions with the Washington State Chapter of the American Public Works Association and am the recipient of recognition awards from Business Week Magazine, NAFA, and the National Association of Counties.

More importantly is the fact that I manage one of the largest fleets of alternative vehicles in North America. Moreover, my experience with alternative fuel is not new. We in King County have been operating alternative fueled vehicles since 1991. King County received the 1993 Clean Air recognition award from the American Lung Association.

Today, I would like to share with you some of the things we have learned about alternative fueled vehicles over the past five years, things that I

believe need to be taken into account before the Department of Energy mandates private and local government fleets to acquire alternative fueled vehicles.

King County currently operates 256 alternative fueled vehicles; 98 are powered by propane and gasoline and 158 are powered by compressed natural gas and gasoline.

Of the 158 dual powered vehicles, 74 are police sedans. Since we instituted our alternative fuels program back in 1991, our CNG-powered police sedans have accumulated more than 5 million miles of service. Here are some of the things we have found:

First, CNG is reliable. We have had no major problems over the past five years.

Second, we have found that CNG vehicles are safe. Police sedans equipped with CNG fueled have been involved in three separate accidents, but the CNG fueling system, including the tank, was never compromised.

Third, maintenance costs for CNG vehicles may be slightly lower than for gasoline vehicles due

to the fact that CNG is a cleaner burning fuel and does not require tune-ups as frequently as gasoline powered vehicles. Those are the positive aspects.

Now for the other factors we believe need to be taken into account before the government mandates fleets to acquire alternative fueled vehicles.

First, the driving range of CNG changes with the ambient temperature. On a good weather day, a tank load of CNG is good for about 80 miles of driving. Other days it is less. During a typical 118 mile police shift, compressed natural gas accounts, on average, for only 51 percent of the fuel consumed. That gives you an idea of how limiting CNG operating range is and why our vehicles must also be able to operate on gasoline.

Second, when the $4,700 cost of converting a vehicle to CNG is factored in, the operating cost of CNG can't begin to compare economically with gasoline. We estimate it takes five years of driving solely on CNG to simply recover the cost of conversion. The $4,700 conversion cost does not include the additional

cost of $1,400 to convert the vehicles back to gasoline powered after it is retired from police service.

Third, fueling is not readily accessible. In King County, an area of more than 2,200 square miles, there are only three locations, three where CNG vehicles can be refueled. The County owns and operates two of them, and jointly owns and operates one with the City of Seattle. Three locations is not enough when you consider that the driving range of vehicles using CNG is less than 100 miles.

Fourth, the high cost of upgrading existing maintenance and repair facilities such as with ventilation, gas detection, electrical equipment, automatic fire sprinkler systems, and structural fire separations, to reduce the risks and the hazards associated with maintaining and repairing alternative fuel vehicles. The consulting firm of Booz, Allen & Hamilton estimated that it would cost about $429,000 to bring King County's facilities up to standard.

Fifth, alternative fuel suppliers do not seem to be interested in installing fuel facilities.

In the five years that we have been operating CNG vehicles, not one supplier has opened a public fueling facility.

Sixth, these conversions, as I noted which cost more than $4,700 per vehicle to convert to dual power, and the $1,400 to reconvert to gasoline powered, more than wipe out any operating savings that CNG may offer. The same would hold true if we were able to obtain dual fuel vehicles for other fleet vehicles, directly from the manufacturers at the promised differential price of $3,000.

What these figures show is how much of an economic disaster we in King County, and other fleet operators will face, if we are required by federal mandates to acquire alternative fuel vehicles. If 20 percent of the vehicles we acquire in 1999 have to be alternative fuel, it would add $1.3 million to our current fleet acquisition costs. And since we already have invested more than $2 million in alternative fueled vehicles, that would bring our total investment in alternative fueled vehicles to $3.3 million more than the cost of traditional gasoline powered

vehicles.

But that is nothing compared to what would happen if we are forced to convert our entire fleet to alternative fuel. We presently operate a total of 2,600 vehicles in our fleet that would qualify for conversion to alternative fuel. Not too long ago, to get an idea of what a complete fleet conversion would cost, we called in the consulting firm of Booz, Allen & Hamilton. They told us it would cost $18 million.

In other words, my fleet acquisition cost, or rather the cost to King County taxpayers, would increase by an additional $18 million compared to vehicles powered by gasoline and diesel fuels. Booz, Allen & Hamilton calculated that if we made that conversion, air pollution in King County would be reduced by three hundredths of one percent. Three hundredths of one percent. What a minuscule return on an investment of $18 million.

And what else will we get for this added cost? We will get vehicles that can't travel as far as regular gasoline vehicles because they have a smaller operating range. We will get fewer vehicle

choices from which to select and we will have to wonder where we're going to be able to fuel these vehicles.

As things presently stand, there is no fueling infrastructure plans in place for alternative fuels. Nor is there likely to be any by 1999. I have not seen any indication from either the private sector or the federal government that there will be alternative fueling stations available anytime soon.

But perhaps a better indicator of why I do not believe that there will be any improvement in the availability of alternative fuel infrastructure, or any infrastructure for that matter, in place by 1999 is the record of what has happened in King County. Despite the fact that we have had an alternative fuels program in effect, and growing since 1991, no one, and I repeat, no one has come forth to increase the availability of alternative fuels in King County.

Based on our experience with alternative fuel, I do not believe the federal government should require any fleet, including private and local government fleets, to buy any required percentage of

alternative fueled vehicles in 1999 or in the foreseeable future, because there are too many obstacles to their efficient use. Namely, the extremely limited operating range, the high cost of conversion, the lack of fueling infrastructure, the additional cost of reconversion to gasoline powered vehicle required for resale, and the high cost of modifying facilities.

Don't get me wrong. There is a need for clean air, and we in King County were among the first to recognize this. We have been using alternative fueled vehicles for five years without being required to by the federal government, or by anyone for that matter. Nevertheless, I believe that as things stand now, it is just too expensive to require fleet operators to purchase alternative fueled vehicles. Most fleet operators simply cannot afford it.

Instead, I believe we would be better off if the additional money was spent on research to further lower vehicle emissions on all vehicles, rather than converting a comparatively few vehicles to alternative fuel. New cars and trucks are already

much cleaner than 10 to 15 years ago. So why not continue exerting efforts in that direction?

If the federal government wants to be a supportive partner, I would suggest that it subsidize automakers and oil company research and development costs for manufacturing a more competitive alternative fuel vehicle, or offer greater tax incentives to fleet operators to encourage more voluntary alternative fleet conversions. Such actions are not unheard of at the federal level.

Right now, the federal government is asking the operators to absorb the cost of alternative fuel conversions at a time when there is absolutely no certainty that this is the most efficient or best way to clean the air.

Fleet operators do want to clean the air. We have demonstrated that commitment in King County. However, there are limits to how much should be asked of us and not of others, particularly when the results of our efforts will not significantly improve the health of our citizens.

In conclusion, my recommendation to the

Department of Energy is this: Until some of these other issues involving alternative fuel have been addressed and corrected, do not mandate private and local government fleets to acquire alternative fueled vehicles beginning in model year 1999, or any other model year. Thank you.

MR. RODGERS: Thank you very much. I commend you for your existing alternative fuel program. I guess my one question after reading)) hearing your statement is, why do you use alternative fueled vehicles in your fleet?

MR. MITCHELL: We use alternative fueled vehicles in our fleet because we want to set an example for others. We feel it is the right thing to do and King County was the first to step forward.

MR. RODGERS: It's the right thing to do for what purpose?

MR. MITCHELL: Of course to reduce particulate pollution. Again, King County saw the need for this and wanted to inspire its citizens. But as I mentioned, there are limits to mandates. There are limits to resources. And what we are saying here,

until the federal government or the private industry come up with a better vehicle, that mandates should be set aside.

MR. RODGERS: Another question I have is, if a local government mandate was in place in 1999, and I read from your statement you have an estimate of approximately $18 million would be the cost of compliance, would you consider using flexible fuel vehicles that have very low incremental costs?

MR. MITCHELL: Sure, yes.

MR. RODGERS: So that the))

MR. MITCHELL: We will try anything. But without mandates.

MR. RODGERS: So the actual cost of complying with the mandate, using flexible fuel technology, might be a lot lower than $18 million?

MR. MITCHELL: The flexible fuel technology would cost $18 million. That's the cost.

MR. RODGERS: Okay. Actually I'd like you, if it's possible, to check into that. Because I'll bet that that $18 million was based on a mixture of CNG or other vehicles, but I appreciate very much

your comments. Paul.

MR. McARDLE: Yeah. Just a follow-on David, and that again is relative to the $18 million, and I don't know if you can make this available to us. It may be proprietary, I'm not sure.

MR. MITCHELL: What, the study?

MR. McARDLE: The Booz, Allen & Hamilton study.

MR. MITCHELL: Oh, sure. I'll make a copy and deliver it to you.

MR. McARDLE: If you could make that available, I'd greatly appreciate it.

MR. MITCHELL: Yes, yes.

MR. McARDLE: Thank you.

MR. MITCHELL: My pleasure.

MS. CHUN: I guess I am curious, considering the cost of using alternative fueled vehicles that you already have in your fleet, how is it that King County can continue to support this program? I mean are the King County taxpayers happy with continuing alternative fuels?

MR. MITCHELL: Because our leaders are

progressive. We believe in the Clean Air. But we also feel maybe there are better ways to do it than by instituting mandates.

MS. CHUN: So you would be willing to continue on with your efforts?

MR. MITCHELL: Yes.

MS. CHUN: Okay.

MR. MITCHELL: We will continue with our program.

MR. RODGERS: Thank you very much for coming down.

MR. MITCHELL: You're welcome.

MR. RODGERS: Our next speaker is Bill DeRousse.

MR. DeROUSSE: My name is Bill DeRousse. I find it interesting in the comments and the diversity of all the people that have spoke this morning, how much we have all said in the same direction about alternative fuels.

I understand that DOE has not yet completed its study on technology and economic feasibility meeting the alternative fuel goals. My

comments I hope will provide insight from a fleet perspective and are not intended to criticize the objective.

I am the Fleet Superintendent for the City of Everett, Washington, 26 miles north of Seattle, with a population of 82,000 and a diversified fleet of 700 pieces of equipment providing support to police and fire services, a city bus fleet, assorted ground maintenance items, and the repair of city roads, water and sewer lines.

I am an experienced Fleet Manager, having both experience in the private fleet sector and also the public. I speak for organizations concerned with unfunded mandates, in particular the alternative fuels program. I am also the Chairperson for the Puget Sound Chapter of the National Association of Fleet Administrator, Vice President of the Northwest Public Fleet Managers Association, Chair of the National Bus Association, and serve on the Maintenance Committees of Everett Community College, Washington Trucking Association, and Washington State Transit Association. I also serve as a Trustee at the University of

Washington, Engineering Professional Programs Division, as well as other national organizations.

I believe we share an interest in improving our environment. The City of Everett's Mayor, Ed Hansen, is a member of the Puget Sound Regional Transit Authority and has fought hard for the regional transit system that is responsive to the needs of local communities and also offers transportation alternatives. He has also been the leader of a successful coalition effort to obtain State funding to extend car pool lanes into Everett. The City has also joined a consortium with Snohomish County, the Snohomish Public Utility District, community Transit of Snohomish County and Heineck Associates to raise money to test hybrid electric buses, electric cars and light trucks. We are also very interested in the fuel cell technology that is up and coming.

The problems we face in reference to the alternative fuels program, is multi-faceted:

1. Added cost of equipment.

2. Reduced mileage range availability.

3. Cost to upgrade maintenance facilities because of the characteristic differences in diesel fuel and gaseous fuels.

4. Cost of manpower to refuel more frequently.

5. Cost of the refueling infrastructure.

6. Concerns that as alternative fuels become mandatory, tax levels will increase to offset the decrease of taxes that could result from less diesel fuel usage.

7. Training costs of operators, fuelers, and maintenance technicians, and

8. Unknown repair costs.

These costs represent millions of dollars we do not have, especially at a time when less revenue is available at local governments. This is especially true during a time when we are responding to an increased demand for public safety.

While reading over DOE's alternative fuels docket, several issues came to my attention. While I agree with the Energy Policy Act of 1992 goals, I find certain federal and state actions in contradiction.

For example, why would we raise the speed limits when we were concerned with oil consumption? In the May 20th issue of Newsweek, writer Calvin Trillin, while writing about the 4.3 cents per gallon tax repeal wrote, how by increasing the speed limit from 55 to 75 miles per hour, we have increased our fuel consumption by 50 percent.

In September 1996 issue of Fleet Owner, writer David Cullens writes that for every mile over 55 miles per hour on over-the-road class 6 through 8 vehicles, the miles per gallon decreases .1. At 70 miles per hour, if you were getting six miles per gallon at 55 miles per hour, you would now only get 4.5 miles per gallon. For every 3,000 miles driven, you would increase the amount of fuel needed by 167 gallons of diesel. Multiply that by the hundreds of thousands of trucks on the road.

Additionally, the increased speed has had a significant impact on tire life and retreadability. At 55 miles an hour, a tire is manufactured to display a engineered footprint with a predetermined stress factor on the sidewall. By increasing the speed to 65

miles an hour and above, we increase this footprint of the tire, thereby increasing the rolling resistance and sidewall stress, decreasing tire life. Add this to the aerodynamics of the modern fleet vehicles and the heat generated to stop these vehicles, we increase tire wear. In addition, we decrease the standard three caps per tire to two or less. The loss of capping capability also increases oil consumption through additional tire purchases.

It appears to me that increasing the speed limit is totally against the goal of the Energy Policy Act.

I have a file full of news articles about transit and large city operations that have spent millions of dollars on alternative fueled vehicle programs, only to discontinue them, as they did not work or they were too expensive. There are, however, a few that stayed with alternative fuel programs, regardless of the cost.

You indicated in the docket material that 20,000 alternative fueled vehicles exist in the federal fleet. That amount seems to be far less than

I recall the mandate required and how many of these vehicles were dual-fueled? And of the ones that are dual-fueled, how many actually run on the alternative fuel?

To respond to some of the other questions in your docket, you spoke of an increasing infrastructure and that the automakers were increasing their production. I have read that automakers have decreased production and I have not yet seen the infrastructure needed.

Who is going to pay the increased cost needed to run our fleets? Who will pay for the building remodeling and the fueling infrastructure?

The cities, counties and businesses I meet with cannot afford the added cost and if costs are imposed, where do the displaced workers go, who will be let go to pay for this mandate?

Shouldn't we look at things like mandating the use of using re-refined motor oils in our vehicles? this would decrease our demand for the crude oil needed to make motor oil by 75 percent.

Require engine manufacturers to increase

engine oil change intervals from 6,000 miles to three times that much, this would further decrease the amount of crude oil used in motor oil by another 50 percent or more.

There needs to be a significant tax incentive to private companies for them to use alternative fuels, but enough to provide a return on investment.

There should be a fuel tax set up strictly for the funding of alternative fuel programs and the infrastructure. The Clean Cities program should have a guiding and active part on how and where the funds are spent. This would decrease the cost impact on companies and have the least impact on job displacement. If the alternative fuel is to have a lower tax rate than gas or diesel, it must be long term as not to discourage a favorable return on investment for the companies and the municipalities who are participating in the program.

I would not recommend the use of dual fueled vehicles, as it is too easy to use the non-alternative fuel.

DOE should base its assessment on the total number of alternative fueled vehicles committed to production. A tax incentive should be offered to manufacturers that would offset the cost difference between non-alternative car, van or light trucks, and the alternative fueled vehicle.

The fueling infrastructure should be centrally located only. The further the fueling station is from the vehicle base, the more costs it takes for the vehicle to go to the fueling station, labor hours, and the less attractive the alternative fuel becomes.

An unfair competitive advantage would be:

1. The location of a fueling station between companies.

2. A competitor's fleet that is over 8500 GVW and is not required to use alternative fuels, this program could force companies only to purchase vehicles over 8500 GVW.

An undue economic hardship would be to require any company or municipality to buy alternative fueled vehicles, to build a fueling station, or to

have to remodel existing maintenance shops to facilitate gaseous fuels.

I believe the Energy Policy Act goals can be met voluntarily with financial assistance.

So while we applaud the larger cities, states and transit organizations for experimenting with alternative fuels, that experimentation has come with a large price tag.

Perhaps the most important message to leave you with then is this: Implementation of this program without adequate federal and state funding support is financially impossible for private companies, cities, counties and state organizations. Existing money is simply not available to fund the Alternative Fuel Program. We cannot do it without new and stable funding sources.

Thank you for your time and if you have any questions, I'll be glad to answer them.

MR. RODGERS: Thank you very much, Bill. And I really appreciate how in your comments you address several of the very specific questions that were in the advanced notice of proposed rulemaking.

That will help us very much as we move forward.

But I did want to emphasize and ask you again and I apologize if I sound like a broken record, but you really emphasized the cost. But if your fleet could run on flexible fuel vehicles that have no incremental costs, then when we're assessing the costs of the fleet mandate, we punch our calculators over and over again, and it doesn't look like it costs that much with flexible fuel vehicles. Can you respond to that?

MR. DeROUSSE: There's always a cost involved, whether or not it is the purchase of the vehicle or the infrastructure that you need to go to, if you don't own it yourself, to operate that vehicle.

The question you have to ask yourself, and whether you're in a public sector or the private sector, is what is my return on investment? Why would I do that? What is my gain for doing that? And how do I stay competitive with my competitors if I do do that? What am I getting out of this? And it's a question that everybody is going to ask and if you're answering that for them, why do it?

MR. RODGERS: I appreciate that. But if every Ford Taurus sedan that was used by fleets today, and I think the Ford Taurus is a popular fleet vehicle, was tomorrow a flexible fuel vehicle at zero or very little incremental cost, it seems to me that we would have a step forward for energy security. We would have an inducement for the placement of alcohol refueling stations and the costs to the fleets would be minimal. Can you respond to that?

MR. DeROUSSE: Well, I think you're talking)) with the Energy Act, I believe in the policy, I believe that is the intent to do that. But I don't see where there is not a cost involved in that. And for that reason, my concern is, who is going to pay for it? If you mandate it, what are we going to give up to get there?

I don't have a problem buying an alternative fueled vehicle, if that vehicle costs the same as the vehicle I'm purchasing alongside of it.

My next question is, for what? Now that I have the alternative fueled vehicle, I've either lost cargo space or I've lost the space for

transporting goods and material, where do I fuel at? And the problem of moving from point A to point B when you're used to moving in the area of point A only to get fuel, you have an additional labor cost that you now have to factor. And so instead of, like the UPS gentleman said of making 30 deliveries a day, I'm now only making 20. Now, if I'm making only 20 deliveries a day, my rates are based on 30. In order to now pay for my overhead costs, I must now adjust my fees to cover the loss revenue that those ten additional stops meant to me.

MR. RODGERS: Okay. Thank you, that's helpful. I actually don't think you're answering my question though. But I appreciate that and if you would like to offer any other comments, I'd appreciate it very much. Thank you. Paul.

MR. McARDLE: Yes. I actually have a comment and a question. The first one, you discussed speed limits. And as part of the legislation that was passed by Congress and signed into law on repealing the speed limits and giving that right to the states, the U.S. Department of Transportation and specifically

the Federal Highway Administration is required to do a study of the ramifications in terms of safety and fuel consumption, et cetera, on raising the limits.

And you may if you're interested, it sounds like you're interest in that in terms of the speed limits, you may want to get involved in it. They're having a comment period and taking comments on that issue. I don't have a contact for FHWA. But I'm sure you could get one if you pursued it.

And the second thing I wanted to ask you about, when you talked about an unfair competitive advantage to fleets that had a lot of heavy duty vehicles, relative to the light duty vehicles; is it your view if we had incentives, that the incentives should be for heavy duty vehicles as well, as well as the light duty vehicles?

MR. DeROUSSE: I think there should be an option of how you)) the goal is to reduce our dependency. How we get there, which vehicle class we use to do that, should be irrelevant.

MR. McARDLE: Okay.

MS. CHUN: I just have a question

regarding the numbers that you stated in terms of reusing refined motor oil or requiring engine manufacturers to increase engine oil changes. Where did you get those numbers and how they would translate to reduced demand for crude oil?

MR. DeROUSSE: I have some documents in my office from the refineries that determine how much crude oil in a 55 gallon drum of crude oil, how much of that actually winds up as a virgin motor oil. And for lack of having the numbers in front of me, it's something like for 55 gallons you can get about three gallons of virgin motor oil. You can take one gallon of used motor oil and refine that, or refine it to back to a condition the same as virgin oil. And it only takes a couple of gallons of oil to accumulate one gallon of the same type of virgin oil.

MS. CHUN: Are those numbers that we could get ahold of?

MR. DeROUSSE: Sure.

MR. RODGERS: Thank you very much.

MR. DeROUSSE: Yeah.

MR. RODGERS: Our next speaker, Jim

Lakomy, are you here?

(No response)

MR. RODGERS: Okay. We'll move on to the next speaker, Ed Yates.

MR. YATES: Thank you. For the record I am Ed Yates with the California League of Food Processors. We're a trade association representing California's fruit and vegetable processors. Characterized by seasonality, we do about 80 percent of our work during the summer harvest season, converting raw product into shelf stable products that are available to the consumer at any time of the year.

I prepared a brief outline. Many of those points have been covered by other speakers and I won't dwell on them. But listening to some of the comments earlier, there are some I would like to underline.

Number one, the way that that)) and this is not in the outline. I think this is really important. The way the proposal is crafted, it has a great potential to place similarly situated food processors at great disadvantage. Let me use an example. California accounts for 100 percent of the

production of black ripe olives. Let's say we have a processor that either has the 50 vehicles nationwide, or happens to be located in an urban area with 250,000.

Okay. And if I use the)) a low number and the threshold of 20 vehicles, assuming they have a much larger fleet, and translate that incremental cost into how many extra cans of black ripe olives that they would have to produce and sell to get back to parity with that olive canner who doesn't have a mandate, I run somewhere between 1.1 million cans to two and a half million cans, that that processor would have to convince that many people or that many persons in the country to go jerk an extra can of olives off the shelf. And that's just to get them to parity with that processor who doesn't have the mandate.

If they went to electric vehicles, of course the number just goes completely out the roof.

I would also like to point out, which I do have a bullet point, is we, both at the federal level and the state level, are moving towards deregulation in a number of energy funds. Most recently natural

gas and currently electricity, to move those industries towards a competitive marketplace.

It seems puzzling that Congress and the Federal Government would be moving towards mandates for similarly situated energy issues.

The other thing I'd like to mention is, I guess the food processing industry in California is a little skeptical about federal mandates. About 20 years go we were told that the world was going to be out of natural gas and that we would have to convert to alternative fuels. From the association's standpoint, the management of the association, it was a very)) that was probably one of the most excruciating pieces of communication that we had to send to the industry. Is that you're going to have to spend tens of millions of dollars for alternative fuel. And as it turned out, of course, it was totally wasted. Because no alternative fuel was burned, because of fuel scarcity.

So we, based upon our experience, with all due respect, take a little bit of skepticism.

I also find it interesting that this Act

was passed in 1992, with some dates that are eight years later to start this kind of a program. And of course with these two-tier rulemaking in the interim.

I guess in summary, don't do it. Thank you.

MR. RODGERS: Thank you very much for your comments. Paul, do you have any?

MR. McARDLE: No.

MR. YATES: No questions?

MR. RODGERS: Is olive oil a good alternative fuel?

(Laughter)

MR. YATES: No. But it's extremely nutritious.

MR. RODGERS: Thank you very much. Our next speaker is David Modisette. I hope I pronounced that right.

MR. MODISETTE: Good morning, if it is still morning. I'm Dave Modisette. I'm Executive Director of the California Electric Transportation Coalition. The Coalition works with California state agencies, the State Legislature, and local governments

in California to encourage the development and commercialization of electric vehicles and other forms of electric transportation. Our members include the Los Angeles Department of Water & Power, the Pacific Gas & Electric Company, the Sacramento Municipal Utility District, San Diego Gas & Electric Company, Southern California Edison Company, and Edison EV.

As you can tell, our members are the fuel providers for electric vehicles. And as such, there are special demands made on us under the Energy Policy Act. We are fully committed to meeting or exceeding those requirements.

We also strongly support the energy diversity and security goals of the Energy Policy Act. Electric vehicles are a critical element in meeting these important goals, as well as in addressing national environmental and economic goals.

Let me emphasize that for Californians these goals are not just numbers on a page, without meaning or relevance to the average citizen. These goals, and the alternative fuel vehicles that will achieve them, provide real benefits to all citizens,

quantifiable benefits, direct economic benefits that will keep dollars in the pockets of all citizens, rather than forcing them to spend more for unexplained oil price hikes, and more on health insurance costs and direct health costs for pollution-related illnesses, and more for consumer goods and services from additional costs to employers and businesses.

All Californians pay these costs today. And these costs are not only real, they are huge. Several years ago, a study by the California State University Fullerton, found that the health-related costs alone, in just the Los Angeles Air Basin, of not meeting federal air quality standards was more than $10 billion each year. These costs are staggering. They are the unseen, hidden costs of pollution and over-dependence on oil. They are the hidden subsidy of petroleum, which all Americans pay every day.

Let's look at these costs in another way and let's bring the numbers down to a level that we can all understand. I have attached a chart to my testimony, which is the conclusion of some really state-of-the-art analysis that was done by the Union

of Concerned Scientists. This is the horizontal chart. They examined the cost of cleaning up pollution caused by one gasoline vehicle during its lifetime and compared that to the cost of cleaning the pollution caused by one electric vehicle, including the costs of power plant emissions. The cost of pollution reduction were taken from real-world costs which stationary sources pay to install pollution control equipment.

As you can see, it costs more than $17,000 to clean up the pollution caused by one gasoline vehicle. And even when powerplant emissions for electric vehicles are included, it only costs $250 to clean up the pollution from an electric vehicle during its lifetime. So for every electric vehicle which displaces a conventional car in the Los Angeles Air Basin, you can see the conclusion by the Union of Concerned Scientists, that we save almost $17,000 in pollution control costs.

And truly this is an avoided cost provided by electric vehicles, because meeting healthy air standards is a zero-sum game. California is counting

on, California is relying on, large numbers of electric vehicles to help meet federal and state air quality standards. If the State does not get the pollution reductions from the number of electric vehicles that we are counting on, the burden to make up the difference will fall on someone else. Most likely it will fall on stationary sources, which means California industries and businesses, which are already hard hit by environmental regulations.

So it is easy to see why the introduction of electric vehicles in fleets and by other users benefits all industries and businesses, as well as all citizens. The pollution reductions achieved by electric vehicles will help to ensure that additional pollution control requirements are not placed on existing businesses, or on new companies that want to locate here.

Once businesses and individuals understand that every electric vehicle which displaces a gasoline vehicle in the Los Angeles Air Basin saves $17,000 in pollution reduction costs, they view the issue differently. Think about it. What is it worth to you

to avoid spending $17,000? And these numbers add up very quickly: 1,000 electric vehicles saves almost $17 million in pollution control costs; 100,000 electric vehicles saves $1.7 billion.

The Union of Concerned Scientists also did a complete fuel cycle analysis of electric and gasoline vehicles. This included powerplant emissions for electric vehicles, and so-called upstream emissions for gasoline vehicles, such as gasoline production, refining, transport and marketing. They concluded that electric vehicles were 99 percent cleaner than the average gasoline vehicle on the road today. And if it is ever possible for gasoline vehicles to meet California's strict Ultra-Low Emission Vehicle standard, electric vehicles will still be 97 percent cleaner.

The USC study also found that electric vehicles in California reduce greenhouse gas emissions by more than 70 percent when compared to a gasoline vehicle. And of course oil consumption of electric vehicles is zero, while a conventional vehicle will consume almost 7,000 gallons of gasoline over its

lifetime.

So how do we capture these economic and environmental benefits of electric vehicles and other alternative fueled vehicles for our citizens?

DOE is on the right track with this hearing, because fleet use is almost an ideal way to introduce clean, new vehicle technologies and fuels. Most fleet users have known routes, with limited range. The vehicles return by the end of the day to a central location where they can be recharged and serviced, if needed. Infrastructure costs are minimized. Plus fleet operators are specially trained in the use of their vehicles.

Additionally, the Energy Policy Act, through the requirements on the federal fleet, state fleets, and alternative fuel provider fleets, is also helping to create the critical, early market for new vehicle technologies. These early, strategic markets, will help to create an environment that will allow for increasing volumes, and therefore declining prices to enable the creation, over time, of a sustainable market for electric vehicles.

During these early years, many consumers, whether fleet or individual buyers, will be reluctant to purchase electric vehicles, due to their initial high purchase price and due to the lack of actual on-road experience with the vehicles. Government can help electric vehicles overcome these market-entry barriers through the provision of incentives that encourage the purchase and use of these vehicles.

Although the Energy Policy Act provides a base level of incentives, the Federal Government needs to do more. Incentives should reflect the long-term benefits which these vehicles provide. Incentives can be financial or non-financial, such as the provision of preferential parking for electric vehicle owners, or access to high-occupancy vehicle lanes.

Senator Barbara Boxer has introduced legislation to provide additional tax incentives, beyond those included in the Energy Policy Act, to help assure that electric vehicles get a jump start and become a viable transportation option.

In conclusion, we urge the Department of Energy to promote incentives for the use of

alternative fuel vehicles by fleets and by individuals in a broad context, which goes beyond purchase incentives and includes consideration of: recharging and refueling infrastructure needs; technology demonstration and commercialization activities; the purchase of vehicles by federal fleets; opportunities to pool purchases by public or private fleets or individuals; public education and information; innovating financing or leasing arrangements; technology research and development; standardized training for state and local officials for building code activities and emergency response; and technical assistance, or I should say additional technical assistance, to state and local governments that want to establish alternative fuel programs.

The EPACT goals are clear. The opportunities understood. The benefits known. In partnership, we can achieve them. We offer our active support and assistance. Thank you.

MR. RODGERS: Thank you very much. Using the numbers that you provided in the UCS study and about 17,000 per vehicle I think, would it be fair to

then say)) I don't want to put words in your mouth)) but that an incentive to help promote the use of alternative fuel vehicles could be about 17,000 or some fraction thereof, and what we'd really be doing then is just transferring our current costs of pollution reduction into a different way through the use of the electric vehicle.

MR. RODGERS: I believe that that is the conclusion of the UCS study. Now, it may not be necessary to provide, you know, that level of incentive. But I think what the Union of Concerned Scientists study was showing is that that's the threshold of cost effectiveness and, again, those costs are being borne today. We actually pay those costs today.

Paul, do you have any questions?

MR. McARDLE: Yes, I have a couple of questions. First, this Cal State Fullerton study on the $10 billion per year, is that study available?

MR. MODISETTE: Sure. I can provide you with a copy.

MR. McARDLE: Thank you, that's great.

There's a couple of more things I want to ask you. About the)) and if you don't know, maybe you can get clarification later. But you talked about the $17,000 in pollution reduction costs, is that just health benefits or are there other things or is it like a control cost?

MR. MODISETTE: It's primarily health benefits. The full study is attached to my testimony.

MR. McARDLE: Okay. I'm sorry. I didn't realize that.

MR. MODISETTE: And there is a breakdown. There's both an explanation of the methodology and then a breakdown of how they arrived at that figure in the full study.

MR. McARDLE: Okay. Thank you. Let me see if I had something else I wanted to ask you. Oh, on the greenhouse gas emission reduction, I assume that's based on California's fuel mix for its generating plants.

MR. MODISETTE: Yes. It's based on California's mix of power generation, which as you know, is extremely clean.

MR. McARDLE: Okay. Thank you.

MR. RODGERS: Clara?

MS. CHUN: No.

MR. RODGERS: Thank you very much for coming.

MR. MODISETTE: Thank you.

MR. RODGERS: Our next speaker is Cindy Hasenjager.

MS. HASENJAGER: Good afternoon. My name is Cindy Hasenjager. I'm the Executive Director of the California Renewable Fuels Council, a trade organization representing California's ethanol producers and marketers.

Regarding the issues of alternative fuels, the membership of CRFC cooperates with other organizations across the country such as the National Ethanol Vehicle Coalition, Governor's Ethanol Coalition and the National Corn Growers Association.

Representatives from these other organizations will be addressing your public hearing which will be held later in Washington, D.C.

As producers of ethanol, a liquid

renewable alternative fuel, which is currently used in both light-duty as well as heavy-duty vehicles, the members of the council wholeheartedly support the efforts of the Department of Energy through the efforts EPACT to expand the use of alternative fuels.

The goal of EPACT to place)) to replace 10 percent of transportation)) petroleum transportation fuel usage with non-petroleum-based alternative fuels by the year 2000 and 30 percent by the year 2010 is no doubt optimistic but will result in significant energy security, economic and environmental benefits.

Efforts to shift our nation's growing dependence away from imported oil will leave our economy less vulnerable to the political instability of the Middle East. Events during the past weeks again remind us of the price we pay for our dependence on oil from this region.

Decreasing our energy imports could also have the single greatest effect toward diminishing our current imbalance of trade.

Gasoline vapors and vehicle emissions

constitute most of the harmful air pollutants to which humans are exposed. Although the environmental impact of increasing the use of alternative fuels is not the main objective of EPACT, decreasing exposure to airborne toxics, ozone and carbon monoxide will provide significant socioeconomic benefits.

The members of the California Renewable Fuels Council strongly support the objectives of EPACT. However, mandates do not seem appropriate for the segment of the rule which is being debated today, which is acquisition of vehicles by certain private fleets and local government fleets. Instead, we would suggest that the use of a menu of incentives would seem to be more appropriate for these fleets.

The successes of the DOE Clean Cities program provides evidence that cities across the country are willing to develop individualized programs with guidance from DOE to improve the environment for their citizens. Continuing guidance from DOE in addition to incentives such as excise tax parity for all alternative fuels, tax credits covering incremental purchase cost of the alternative fuel

vehicles would seem more appropriate than a timetable of mandates.

Earlier sections of EPACT regarding mandated alternative fuel vehicle acquisition by federal and state fleets have begun to break the ground and we see increased availability and use of alternative fuel vehicles. Local governments and responsible and forward-thinking private companies can now adopt creative innovative and individualized programs to increase the use of these vehicles within their own fleets.

We heard from a representative of NAFA today and some very enlightening and examples of what forward-thinking and creative ideas and committed individuals can do in this area.

Again, the California Renewable Fuels Council supports the advances in the numbers of alternative fuel vehicles which have been made through the implementation of EPACT. Regarding certain private fleets and local governments, however, the availability of incentives seems more appropriate than the use of a mandate program.

Thank you for this opportunity to share the views of the members of the council.

MR. RODGERS: Thank you very much.

MS. CHUN: Cindy, you had mentioned that you felt that the earlier rule for state and fuel providers did succeed in getting more vehicles on the road. You don't think that that would translate in terms of private and municipal fleet vehicles?

MS. HASENJAGER: I think it's just a matter of being more appropriate. State and federal fleets may have the ability to absorb those mandates better, and your experience with DOE, you're probably very aware of how innovative and creative local cities can be, and they, since they're a smaller target audience, more individualized programs may work better at that level. And the incentives and the guidance and the help to get them to that point, we just feel is)) will be as effective and more appropriate.

MR. RODGERS: Actually on that subject, I do have a question. I've really heard a lot this morning about incentives, and I do, though)) I'm not an expert in this, but it's harder for us to give tax

breaks to other governments, like state and local governments, and so I would be very willing and interested to hear if you have anything you could submit for the record or if anyone else has ways to incentivize a vehicle use or fuel use by local governments.

MS. HASENJAGER: I'll be more detailed in my written comments.

MR. RODGERS: Thank you very much.

MS. HASENJAGER: But, again, it's a matter of cooperation that will)) I think where we see the most gains, it's this)) it is where cooperation has been the highest, and the cooperation between state and federal and state and local will give us the best gains.

MR. RODGERS: Thank you very much.

Our next speaker is Leroy Watson, and for the benefit of those of you who have stayed with us for so long, we have two more scheduled speakers after Mr. Watson, and currently I have no unscheduled speakers after that. But if you))

MS. CHUN: Two.

MR. RODGERS: I'm sorry. I see. And then I have two unscheduled speakers after that. So, we should be wrapping up here within the hour.

Thank you, Leroy.

MR. WATSON: Thank you. My name is Leroy Watson, and I direct the regulatory management program for the National Biodiesel Board or NBB.

NBB is a farmer-directed and farmer-funded trade association dedicated to establishing viable commercial markets for biodiesel in the United States. Full-time farmers volunteer their time and expertise to guide the NBB's investments in biodiesel research and market development.

I appreciate this opportunity to appear at this hearing today to discuss biodiesel, an exciting renewable alternative fuel derived from agricultural feedstocks. Increased use of safe and efficient biodiesel and EPACT programs can improve our environment, enhance energy security, foster economic development and provide new markets for our nation's agricultural products.

NBB strongly believes that a regulatory

system for alternative fuels and alternative fueled vehicles that relies on innovative voluntary and incentive-based programs will be the best interest of the commercialization of the biodiesel industry in our country. NBB also believes that the voluntary and incentive-based regulatory programs must have as a goal providing more flexibility and greater freedom of choice to the regulated fleets, federal, state, local and private, that are required to comply with the mandatory provisions of EPACT in order for the biodiesel industry to continue our development.

Now, for the benefit of those who may not be familiar with biodiesel, what is it?

Well, biodiesel is a generic term for cleaner burning alternative fuels for diesel engines that are derived from renewable agricultural feedstocks such as soybean or other vegetable oils. Which means that, yes, David, olive oil is an alternative fuel.

Biodiesel can also be processed from recycled cooking oils and greases. While the biodiesel industry is relatively new in the U.S.,

biodiesel has been used in Europe on a commercial basis for several years.

Now, even though biodiesel is relatively new in the United States, the DOE has been painfully slow to recognize the emergence of this new alternative fuels industry and to collect data on its progress. While the Energy Information Administration, the data collection arm of DOE, collects production and consumption information on other alternative fuels in our country, there is no comparable data collection or publication effort on the part of the EIA for biodiesel industry fuels. This lack of data, frankly, is an impediment to the commercialization of biodiesel. Including routine EIA collection and publication for data on the biodiesel industry in the United States would be a cost-effective means to increase the visibility for the biodiesel industry.

Now, biodiesel is registered with the EPA as a fuel and a fuel additive. It's also recognized by DOE as an alternative fuel in its pure or neat form under the EPACT program, and it's also recognized

under the Clean Cities program. A proposed set of commercial specifications for biodiesel has been developed by NBB and the American Society of Testing and Materials to assure consumers and engine manufacturers that domestically-produced biodiesel will be a consistent and a quality product.

Now, biodiesel can be blended with diesel fuel in any combination with only minor modifications to the engine or the fuel system and with similar engine performance. Its cetane rating, which is similar to the gasoline octane rating, is generally higher than conventional diesel. It can be distributed and stored using existing diesel infrastructures.

The most popular blend of biodiesel tested so far is a 20 percent blend of biodiesel with diesel fuel known as B20. B20 provides many of the same environmental and operational benefits of pure biodiesel at a fraction of the cost. More than 10 million miles of in-service demonstration projects involving urban bus transit systems have been conducted to test biodiesel's reliability and

performance as a fuel technology under actual working conditions.

Recently, the National Biodiesel Board, the American Soybean Association and more than 20 other state, regional and national associations and corporations that support the commercialization of biodiesel in the United States submitted a petition to DOE requesting that DOE designate B20 as an EPACT alternative fuel. Designating B20 as an alternative fuel will strengthen U.S. energy security by reducing imported petroleum through the creation of new markets for biodiesel and biodiesel compatible vehicles.

Including B20 as an EPACT alternative fuel is an immediate proactive decision that can be taken by DOE to jump start the creation of an alternative fuels market for the medium-duty and heavy-duty segments of our transportation sector. However, including B20 as an alternative fuel will not do the following things:

It will not directly impact the budgets or spending of any level of government.

It will not create any new tax break or

subsidy for biodiesel or B20.

Or, it will not result in any additional mandates or additional requirements to use B20 by any regulated fleet that must comply with the provisions of EPACT.

Including B20 as an EPACT alternative fuel will simply offer more choice and greater flexibility to fleet operators who must comply with the requirements of DOE's EPACT program, including the municipal and the private fleet operators that are the subject of today's hearing.

Now, you may already be familiar)) in fact, the previous speaker made you very familiar with another popular clean-burning alternative fuel derived from agricultural feedstocks; namely, ethanol. Occasionally questions arise as to whether biodiesel poses an unintended competitive threat to ethanol that will weaken both the ethanol and the biodiesel industries.

The simple answer to the question is no. Biodiesel and ethanol are not directly competitive fuels. Ethanol is chemically an alcohol. Alcohols

are compatible with gasoline-type, spark ignition engines. Alcohols do not perform well in diesel-type compression ignition engines. Biodiesel, on the other hand, is chemically a methyl ester. Esters make superior fuels for diesel-type compression ignition engines but are basically incompatible with gasoline and gasoline engines.

Therefore, rather than being competitive fuels, biodiesel and ethanol are complimentary fuels for separate and distinct engine technologies. In fact, with the commercialization of biodiesel, America's farmers can now offer our nation a complete set of renewable clean-burning alternative fuels that are compatible with both of the dominant engine technologies in use today, gasoline and diesel.

Now, some of the most exciting attributes of biodiesel are the cost-effective environmental benefits that it can provide. B20 offers significant reductions in EPA regulated emissions. Biodiesel is essentially free of sulfur and harmful aromatics, both of which are criteria for diesel fuels certified by the California Air Resources Board.

As an example of the environmental benefits of fuels like B20, we did a comparison of aggregating some of the metropolitan transit bus fleets here in Northern California, estimating about 2860 buses, operated on B20 and augmented, if necessary, with some exhaust treatment catalysts.

In this study, Northern California could enjoy the following estimated annual reductions in EPA regulated emissions over the baseline emissions of those engines operating on diesel fuel:

124 tons of total hydrocarbons; 3,653 tons of carbon monoxide; 104 tons of particulate matter, and 417 tons nitrogen oxides.

Now, the application of biodiesel technology is not limited to over-the-road transportation systems. Similar example can also be drawn for locomotives.

In my written testimony, I have outlined a fleet of 105 locally-operated diesel-powered locomotives, again operated in the Northern California area, and by using a B20 blend, it can produce the following estimated annual reductions in emissions:

91 tons for hydrocarbons; 2600 tons for carbon monoxide; 76 tons for particulate matter, and more than 300 tons for nitrogen oxides.

Unfortunately, currently DOE vehicle acquisition programs limit or restrict the application of alternative fuel technologies in applications like urban buses or locomotives as a means of compliance with EPACT programs. This is true, even though these markets offer substantial opportunities to displace large quantities of petroleum fuels because the per-vehicle fuel consumption of buses and locomotives is many multiples the consumption of individual light-duty vehicles. If DOE were to focus its attention on voluntary and incentive-based programs to incorporate these major fuel consumption segments of the transportation sector into the EPACT programs, the results could be substantial and immediate.

Now, the environmental benefits of biodiesel are not limited to the emissions. The physical characteristics of biodiesel demonstrate substantial environmental and safety-related advantages over diesel fuel. Pure biodiesel is non-

toxic and biodegradable, making biodiesel an ideal choice for use around commercial and recreational waterways where accidental or incidental release of fuel are major concerns. Even B20 blends will biodegrade more than twice as fast as pure diesel in an aquatic environment.

The aquatic advantages of biodiesel are well known here in Northern California. In July 1992, the "Sunrider Expedition," a Zodiac Hurricane powered by diesel engines, departed San Francisco and became the first vessel in modern history to circumnavigate the globe powered entirely by an alternative fuel, biodiesel. In San Francisco, the Pier 39 Sea Lion harbor patrol craft has been operating on neat biodiesel for more than two years. In April of this year, nearly 200 boating enthusiasts formed the Bay Area Chapter of the Marine Biodiesel League, a voluntary association of recreational and commercial boat owners committed to the commercial development of biodiesel as an alternative fuel for marine applications. These voluntary activities in the Bay Area have helped spur similar biodiesel development

activities in other environmentally-conscious marine markets such as the Florida Keys and the Chesapeake Bay.

Now, one program that DOE should strongly consider is the implementation of a voluntary alternative fuels coordination program for marine markets similar to the voluntary programs to coordinate alternative fuels and alternative fueled vehicles in major cities. A Clean Marinas or a Clean Harbors program could help create the same coordinated infrastructure development programs and coalitions of stakeholders that are currently successful for the ground transportation system in major urban cities.

Biodiesel also helps increase farm income and national energy security. Manufacture of biodiesel is a proven technology. For example, biodiesel production capacity can be added to an existing soybean crushing facility for a moderate capital investment. Biodiesel has a substantial positive energy balance. It delivers 3.24 Btus of fuel energy for every Btu of energy needed to produce the fuel, and that includes the allocated portion of

the energy used to raise the soybeans for the vegetable oil feedstock.

In Iowa, a recent joint venture between Ag Environmental Products, a major biodiesel producer in the Midwest, and Ag Processing, Inc., the largest cooperatively-owned soybean processor in the world, has resulted in the placement of a biodiesel facility in Iowa that will be close to the industrial markets of the Midwest, and more importantly, close to the farmers that grow soybeans used as a feedstock for biodiesel.

Slated to be completed in November 1996, this AEP/AGP 6 million gallon plant, pilot production biodiesel program, will consume enough locally produced Iowa soybeans to purchase the entire soybean outfit for)) output from more than 200 average-sized Iowa family farmers. Future expansion plans for this facility could mean that up to 1,000 Iowa family farmers will have secure markets for their efficiently produced soybeans in years to come.

In a show of support for the emerging, locally-produced biodiesel industry in their state,

the Iowa state government fleets have adopted a policy of operating on 10 percent blends of biodiesel whenever feasible. Economic research conducted at Iowa State University indicates that the State of Iowa can actually recoup its investment in the biodiesel consumed in its state vehicles from the additional taxes and economic activity generated by the establishment of a biodiesel production industry within the borders of their state.

Biodiesel also creates opportunities to recycle waste cooking oils and greases that otherwise must be disposed as solid wastes or in wastewater treatment plants. An innovative waste cooking oil)) excuse me. An innovative waste cooking oil recycling program in Florida involving the Florida Restaurant Association, the Disney Corporation, NOPEC Corporation and several area public high schools is demonstrating how recycling, the environment, biodiesel and a better educated work force for the 21st Century all fit together in a single holistic, community-based approach to solving our nation's environmental and energy security challenges.

In Florida, the Disney Corporation is donating approximately 300,000 gallons of used cooking oil each month that is generated from their theme park operations to NOPEC, a major biodiesel producer in the United States. NOPEC has processing facilities nearby in Lakeland, Florida that can process the waste cooking oil into biodiesel. NOPEC, in turn, donates 10 cents per gallon for each gallon of used cooking oil that it receives to the Florida Restaurant Association's innovative "School-to-Work" program. The "School-to-Work" is a program to train high school students to prepare them to enter the workforce after graduation. The Florida Restaurant Association developed this program because motivated and trained employees are essential for the sustained prosperity of the food service industry. A particular focus of the "School-to-Work" program is an increased environmental awareness for high school students, particularly on the value of recycling in a modern business.

Thus, used cooking oil, which otherwise would have to be disposed of, is recycled into

biodiesel which can be sold to generate economic value to pay for a school education program that trains young people about the importance of work and their environmental responsibility to recycle products like used cooking oil.

The Disney Corporation also has an extensive theme park operations here in California. Obviously, similar types of recycling programs that return value to the community from recycled cooking oils could be established using biodiesel as the catalyst in this state as well.

Unfortunately, there are no provisions under current EPACT programs to assist states, municipal governments or even concerned corporations like Disney to make informed decisions about the costs and benefits of establishing innovative alternative fuels programs either from the perspective of economic development or material recycling. Until DOE's EPACT programs recognize that prudent, voluntary decisions to invest in new alternative fuels technologies like biodiesel will require individualized, objective data, alternative fuels industries, like biodiesel that

offer clear benefits to society above the benefits articulated in the statutes, will not be successful within the marketplace.

In conclusion.

In the U.S., the biodiesel and biodiesel blends such as B20, are increasingly seen as attractive alternatives to diesel in markets that are keenly attuned to the environmental effects, economic impacts, and energy security issues inherent in our national dependence upon petroleum. Examples of markets where benefits of biodiesel or biodiesel blended fuels make them competitive with diesel are marine markets, hopefully government fleets, urban buses and enclosed spaces such as mines or buildings.

The growing demand for cleaner burning alternative fuels to diesel has driven the research and development of biodiesel. NBB has worked with government agencies, universities, private industry and concerned diesel consumers to conduct scientific studies on the beneficial properties of biodiesel and the biodiesel blends such as B20. More than $15 million in soybean farmer check-off funds have gone

toward the research and development of biodiesel since 1992. With all of the benefits I have briefly described, it seems clear that expanding the use of biodiesel and B20 in any EPACT alternative fuels programs will give regulated fleets more flexibility, and more options to meet their environmental and transportation goals, while at the same time utilizing domestically-produced, renewable agricultural products.

And I'll end my presentation there.

MR. RODGERS: Thank you very much, Leroy.

I wanted to make sure. There was a lot of information in your statement. Did I read and hear you to say that incentives rather than mandates is your recommendation for the fleet mandate programs?

MR. WATSON: Yes. We've talked to the same representative fleets and customers that you've heard from today, and they have almost entirely told us that they would prefer programs that are incentive-based as much as possible, or where they could see the)) where they're going to see benefits, such as in economic development or materials recycling which

defer costs for disposal, such as what's going on in Florida.

So, we believe that we want happy customers in developing a biodiesel industry, so if our customers are saying that they believe that the best programs are going to be incentive-based, then we believe we can support that and work with our customers to provide biodiesel on an incentive-based system.

MR. RODGERS: Thank you.

Do you have any questions?

MR. McARDLE: Yes. I have a couple, or actually three. I'll try to go quickly.

The first one involved the bus study))

MR. WATSON: Yeah.

MR. McARDLE:)) on the reductions, and, number one, if it's possible, we'd love to get data on that study, to the extent that's possible.

And secondly, I noticed the reductions are in aggregate tons. Do you have any information on, like, percentage reductions on these pollutants? Like it has hydrocarbons reduced 124 tons,))

MR. WATSON: Yeah. Yeah.

MR. McARDLE:)) and I don't know the relative scale.

MR. WATSON: Earlier this year, the biodiesel industry worked with NESCAUM, which is the association of air quality officials in the Northeastern United States, and working to develop a protocol to certify biodiesel buses that operate in that area for emissions credit trading. And most of the material that I've included here is extrapolated from the data that is presented from that approved protocol. That protocol was approved in May, so that these represent figures that have been noted by the NESCAUM group for their Emissions Credit Trading program.

So, we can provide you a copy of that protocol and a lot of the))

MR. McARDLE: Okay.

MR. WATSON:)) I think the basic questions you're having about that))

MR. McARDLE: That's))

MR. WATSON:)) would be answered.

MR. McARDLE: That's wonderful.

Also, in terms of primary sources of biodiesel in this country, what are we)) are we talking mainly soybeans? In terms of if you are going to go to a larger scale biodiesel program, would soybeans be a big chunk of the primary source or other sources as well?

MR. WATSON: Well, today, the largest available sources of feedstock for biodiesel would be virgin soybean oil. There is usually in the United States a surplus of soybean oil. Most soybeans are grown for the value of their feed product in the meal, which means finding a home for extra soybean oil is often difficult.

However, as I said before, almost any vegetable oil can be used as a feedstock, which means that for the consistency of production in biodiesel, biodiesel producers can rely on various vegetable oils depending upon what market conditions are. So, that as the state of U.S. agriculture may change, we may produce more corn oil, more olive oil, more rape or canola oil type of thing, those products are also able

to be used for biodiesel. But today, the major virgin feedstock would be soybean oil.

Now, outside of the virgin feedstocks, the recycled products would probably be about)) well, it would be evenly divided between used cooking oils, which again are primarily coming from soybean-based products, as well as the possibility of using waste animal fats from meat processing facilities can also be processed into biodiesel as well.

MR. McARDLE: The last thing I want to ask you is about the "Sunrider Expedition." Was that boat powered by B100 or some other blend, maybe a lower))

MR. WATSON: The boat was powered entirely by biodiesel.

MR. McARDLE: Okay. How'd you get that when you went around the world? That's))

MR. WATSON: It was a logistical challenge))

MR. McARDLE: Yes.

MR. WATSON:)) that had to be worked out before the boat took off about where the boat would show up. In various ports of call around the world,

there were numerous presentations made about biodiesel))

MR. McARDLE: Oh, I see.

MR. WATSON:)) and about the U.S. industry, and so we had a pretty good time schedule about where the ship would be, and arrangements were made to ship biodiesel around the world to make sure that the ship could continue its trip on time.

MR. McARDLE: Well, the next time you do that, I want to cover that, each stop.

MR. RODGERS: Thank you very much, Leroy.

Our next speaker is Mike O'Donnell.

MR. O'DONNELL: Good afternoon. My name is Mike O'Donnell. I'm manager of Legislative and Regulatory Issues for the ARCO Products Company. I'm here today representing the Western States Petroleum Association. This is an organization that represents expiration, production, refining, transportation, and marketing of petroleum products throughout the Western United States. WSPA appreciates this opportunity to express our views on the Department of Energy's advanced notice of proposed rulemaking on alternative

fuel vehicle acquisition requirements for private and local government fleets.

At the outset, I'd like to make it clear that WSPA has nothing against the use of alternative fuels in motor vehicles provided these vehicles meet equivalent emission standards. Many of our member companies produce and market natural gas and propane, as well as supplying oxygenates for use in motor fuels. Throughout the California Energy Commission's M85 program, many of our members installed and continue to operate refueling facilities at their retail outlets throughout California. In short, WSPA members are in the business of supplying motor fuels to the public and will continue providing the fuels that motorists want.

WSPA believes that market forces should determine when and which fuels, either conventional or alternative fuels, are available in the market. We are opposed to mandates that force particular fuels into the markets, and are also opposed to subsidies and incentives which distort vehicle choice. In addition, WSPA does not believe that the Energy Policy

Acts replacement fuel goals are necessary or desirable. Consequently, DOE should not require private fleets or local governments to acquire alternative fuel vehicles.

Let me explain why WSPA believes that replacement fuel goals and fleet mandates are neither necessary nor desirable.

First of all, if reducing oil imports is DOE's objective, it would make more sense for the Administration and the Congress to support access to public lands that are currently off limits for exploration and development, and ease the excessive payment burden, including lease bonuses, royalties and severance taxes. In addition, the use of alternative fuels will have minimal impact in the short term and will be imported if used in the long term in any substantial extent. While it is true that the U.S. oil imports are projected to increase, it is important to consider that oil markets have changed dramatically since the '70s for a number of reasons.

One, the diversity of oil imports has improved. It is important to look at the source of

oil imports, not just the total level of imports. There are now over 50 countries that supply oil to the U.S. Based on 1995 Energy Information Administration data, the percentage of total U.S. petroleum usage that comes from the Persian Gulf region is low)) less than nine percent. The Persian Gulf countries know that they must compete with producers in Mexico, Canada, Latin America, Asia, the North Sea and elsewhere. Today, it would be very difficult for one country or a small group of countries to sustain artificially)) an artificially high price for oil.

Two, key foreign producers are less likely to take steps to harm the U.S. markets since several now have equity interests in refining and marketing facilities in most of the U.S.

Three, the development of the spot market and sophisticated crude oil futures market have emerged to spread the risks. These markets help to stabilize oil prices in the event of a real or perceived petroleum shortfall.

Four, the U.S. has about 576 million barrels from the Strategic Petroleum Reserve which can

be readily accessed if necessary. Just the existence of this reserve calms markets. It is important that the U.S. maintain as much oil as possible in the reserve. In addition, the U.S. participates in an international oil sharing agreement that can be activated during times of emergency.

Five, known oil reserves are large, and with improving technology, including 3-D seismic imaging and enhanced oil recovery, reserves are likely to continue to grow. Today, the U.S. Geological Survey estimates that the world's proved oil reserves are nearly one trillion barrels. At the current rate of consumption, that's oil for the next 45 years.

The second reason we oppose fleet mandates is that they are an undesirable interference in the marketplace. Neither state and local governments, private businesses nor taxpayers should be required to incur the substantial cost associated with the use of alternative fuel vehicles and the refueling infrastructure. Businesses should not be required to divert investment dollars for productivity and job creation into more costly vehicles that may or may not

meet the needs of their operations. Ultimately, taxpayers and consumers will bear the burden of the marketplace intrusion. Some fleets are currently using alternative fuel vehicles where it makes economic and business sense. This is appropriate and a preferable approach.

Thirdly, although the primary objective of the Energy Policy Act is to displace petroleum, there is a perception that the use of alternative fuels in motor vehicles would improve air quality. We do not believe that alternative fuels would make the air cleaner for several reasons.

One, technical data shows that there is only a small difference in emission performance between low emission vehicles powered by gasoline and many alternative fuel vehicles. The difference in emissions between vehicles using different fuels is much less than the difference in emissions between current vehicles and low-emission vehicles, LEVs. Thus, low-cost gasoline LEVs are the route to cleaner air, not high-cost, low-fuel)) alternative fuel low emission vehicles that discourage fleet turnover.

Two, all vehicles, whatever their fuel, have to meet current and prospective vehicle emission standards. Since there is no incentive to exceed the standards, and customers are unlikely to pay more for such vehicles, manufacturers will presumably build vehicles that merely meet the standards. The practical effect is that in the long term, alternative fuel vehicles won't have significantly better emission performance than conventional vehicles built to the same emission standards.

Next, I would like to briefly comment on the Department's Technical Report 14 entitled "Market Potential and Impacts of Alternative Fuel Use in Light-Duty Vehicles: A 2000/2010 Analysis."

The American Petroleum Institute is preparing a detailed analysis of this report, but I would like to mention two major infrastructure-related concerns that we have with the report.

We understand that DOE is now preparing the second part of the study which includes estimating the transition costs. We urge the Department to take a comprehensive, detailed and realistic view at the

major costs and efforts that would be required to get from where we are today to the world outlined in the technical report. It is highly unlikely that there are sufficient additional engineering and construction capabilities in the world to complete a project of that magnitude in that period of time.

Our second concern is that the study concludes that substantial volumes of the following motor fuels would be available and sold in the year 2010: LPG, E85, CNG, M85, electricity and, of course, conventional and reformulated gasolines. Since each of the alternative fuels would require separate transportation and distribution infra-structure, this would create a very inefficient system.

In summary, WSPA does not believe that DOE should mandate the private and local governments to begin purchasing alternative fuel vehicles. In addition, WSPA does not believe that replacement fuel goals are necessary or desirable. We urge the Department to refrain from implementing a private/local government fleet mandate, instead,

report the following to the Congress:

First, the replacement fuel goals of the Energy Policy Act of 1992 are not technically or economically feasible.

Second, fleet mandates are an unnecessary and undesirable interference in the marketplace.

And third, the replacement fuel goals and the fleet mandates should be repealed.

I would be happy to answer any questions.

MR. RODGERS: Thank you.

Paul, do you have any?

MR. McARDLE: Yes. I thought I wrote something here.

You were discussing kind of the merits of the petroleum distribution)) actually, production, refining and distribution system we have today in the '90s with spot markets, et cetera, relative to what we had in the '70s where we had the oil price shocks. Now, we've had a recent price spike starting in the spring and it has moderated somewhat, although it's kind of gone back up a little with the latest Mid-East events. What's your opinion of how the new petroleum

supply/distribution system has handled that relative to, say, in the 1970s?

MR. O'DONNELL: Just from a peripheral standpoint, I think)) I think you'd have to compare what we're looking at now back to the oil shocks that we saw in the early '70s, and our opinion is, is that the markets that have been set up have moderated what has occurred.

There were a number of other effects that were taking place that caused the price run-ups, introduction of reformulated gasoline in California was one of them, some disruptions of refineries were others, but I think in general, the ability of the distribution and refining markets, as well as the financial markets that have evolved were instrumental in moderating the price impacts.

MR. McARDLE: Thank you.

MS. CHUN: You had stated that at current consumption rate, there is enough oil to support the world's needs for about 45 years.

Department of Energy's concerns are not only the fear of price collision in the future, but

the estimates that suggest that in the next 20 to 30 years, the use of petroleum, the demand for petroleum will increase significantly. How is the petroleum industry looking to meet those demands?

MR. O'DONNELL: It's a very good question.

First of all, I think you have to look at the numbers of areas that the petroleum industry is allowed to go in and drill. The industry has been lobbying extremely hard to get into a number of areas that currently they are blocked from, not the least of which is the Arctic National Wildlife Preserve. I think until the Congress and the Administration realize that if we are going to be "energy independent," what that means, we need to be able to get into the areas that are the highest potential of finding large petroleum reserves and allow those areas to be developed in environmental fashion.

MR. RODGERS: Thank you very much for your comments.

Our next speaker is Anita Mangels.

MS. MANGELS: Thank you.

Before I begin my remarks, I'd just like

to mention that I have submitted written comments on behalf of the Reason Foundation, the California Manufacturers Association and the California Chamber of Commerce. They had intended to send representatives here to personally deliver those and were unable to, so they send their apologies and asked me to please submit those. So, I was happy to do that.

MR. RODGERS: Thank you.

MS. MANGELS: My name is Anita Mangels. I'm the executive director of Californians Against Hidden Taxes. Among others, our statewide coalition represents the California Manufacturers, the National Tax Limitation Committee, Americans for Tax Reform, the National Federation of Independent Business, Western States Petroleum Association and the California Farm Bureau Federation.

We spent the better part of the last two years working against technology-forcing mandates and publicly-funded subsidies for alternative fuel vehicles here in California.

At the heart of the issue is a conflicting

view of the role of government. The AFV debate really exists on two separate levels)) the bureaucratic and the technological. Some government agencies seem to believe that they know better than individual citizens, local elected officials, investment professionals and the business community which technology is best for them.

Our coalition believes that the development and promotion of AFV technology belongs in the private sector where it will stand or fall on its own free market merits. Government and technology are like oil and water, they just don't mix.

But since the government seems determined to disregard that basic law of nature, we are, in turn, determined to keep the process honest. Before any new technology-forcing mandates are approved, the government must fully and realistically, and I emphasize realistically, answer the following questions: How much will it cost? Who will pay for it? And what will we get for our money?

Here in California, we know something about the cost and benefits of technology mandates and

subsidized AFV promotion. Our Air Resources Board electric vehicle mandate alone, it has been estimated that it will cost California taxpayers about $17 billion just to achieve a 10 percent market penetration by the year 2010. What will we get for our money? According to the Air Resources Board's own staff, only about a one percent reduction in smog-causing emissions.

And we've seen enough horror stories to write a book, so I'll limit my remarks to just a couple of egregious examples.

You might be familiar with CalStart, a so-called public/private partnership formed to promote alternative transportation technologies. Last July, Forbes Magazine reported that Amerigon, Inc, a publicly-traded company controlled by a CalStart founder, received about $8 million in taxpayer-funded EV development grants, most of which was funded through the "non-profit" CalStart operation.

According to Forbes, Amerigon spent at least $5 million of the CalStart money on designing a battery-powered vehicle for sale to Asian customers.

Forbes went on to say that although Amerigon has never manufactured a profitable product, its founder, the CalStart director, took the company public in 1993 once the value of his personal stock holdings has exploded to about $41 million.

Now, the scoreboard here is not very encouraging. Cost to taxpayers, $8 million. Air quality benefits, zero. Energy independence benefits, zero.

Or, how about the hundreds of thousands of dollars the Los Angeles MTA spent on methanol-powered buses, only to learn that the methanol destroyed the engines? How do you explain to taxpayers that you don't have the funds to keep your emergency rooms open but can afford to squander hundreds of thousands on buses that have to be scraped after one year? And, again, with zero air quality benefits.

I'd just like to interject here, because I was very interested in the methanol gentleman's remarks. We're not saying that they're not going to work the kinks out and that other people haven't had these problems with them. What we are saying though

is, before such massive investments are made)) like the LA/MTA situation, it's probably a lot better for these kinks to be worked out through limited use in the private sector.

The technology will evolve and when it is cost-effective, when it is proven to be more reliable, fleet managers will then have the choice to make those decisions on their own. If you go in with a mandate that forces the government to buy these things, you're going to be in a world of hurting if 70 percent of your fleet suddenly has to be pulled. So, with all due respect to the methanol manufacturers and all the other alternative fuel manufacturers as far as the quality of their product, certainly all products have an evolutionary period and they do progress. We just don't think that the taxpayers necessarily ought to be footing the bill for when these problems come up and on a wide scale.

Now, to continue.

Then there was the South Coast AQMD-sponsored purchase of electric parking enforcement vehicles for the City of Alhambra. Ignore for the

moment that one of the vehicles burned to the ground as a result of a dashboard wire short, that the battery packs of others had to be supplemented in order to achieve an acceptable range, and that the vehicles often did not meet mileage estimates.

The cost of this program worked out to be over $6 million per ton of emissions reduced. Now, our State Implementation Plan calls for reduction of over 2,000 tons per day and the extrapolated cost of this one project was over $6 million per ton for reductions that can be measured in pounds per decade.

There are many other so-called air quality measures whose benefits may be quantified, literally, in terms of grams per decade, if any. And if you couple that with the stark reality that even the AFVs that do work are extremely more expensive and provide far inferior performance, is it any wonder that taxpayers have become increasingly skeptical of the claims of miracle energy cures? It's like the boy that cried wolf, you know, we hear it too much, we stop listening.

There is no reason to believe that pouring

billions into more public)) I'm sorry)) pouring billions more public dollars into a federal fleet program will achieve any better results. As a matter of fact, in terms of emission reductions, there is an overwhelming body of evidence that AFVs are basically the most expensive, least environmentally helpful way to go.

The September issue of Consumer Reports, for example, examines the impact of electric vehicles on greenhouse gases associated with global warming. It's conclusion, and I quote: "Replacing all")) "all gasoline-burning cars with an all-electric fleet today would reduce vehicular carbon dioxide emissions by only 20 percent. But the same improvement could be readily achieved, at a lower cost, just by improving the efficiency of gas-burning cars."

A new study by Carnegie-Mellon University and Georgia Tech concludes that "an all-electric fleet would lower peak ozone in Los Angeles by just 10 percent," which is consistent with our own Air Board's calculation of one percent at a 10 percent penetration level.

If EVs are indeed the cleanest of alternative vehicle fuels, or alternative fuel vehicles, sorry, we can logically expect an even lower reduction rate from other AFVs. If the goal is cost-effective emissions reduction, then why are we discounting less expensive programs with demonstrated environmental advantages, such as the retirement of older, higher polluting vehicles which cause the majority of mobile source emissions in favor of AFVs.

As Ron Stavins, an economist at the Kennedy School of Government at Harvard, told the New York Times recently, "One big lesson here is that it doesn't pay to worry about the 'good' tail of the pollution distribution, when the 'bad' tail, much dirtier vehicles from earlier decades still on the road, remains a factor."

Now, rather than learning from this excellent research and from our own costly experience, DOE continues to actively promote AFV programs and contemplates even more, such as the fleet mandate we're discussing today.

And one such boondoggle is the Clean

Cities program, which seeks to convince local governments to underwrite AFV infrastructure, purchase AFVs for their fleets and amend their building codes to accommodate AFV recharging equipment, notably for electric cars. We've noticed that in monitoring the Clean Cities program here, there seems to be a particular prejudice in favor of EVs, despite the fact that of the alternative fuels available, they happen to be the most expensive and least practical.

What we find most disturbing is that government employees make the rounds of our cities and offer "free money" for AFVs and infrastructure, notably EV recharging stations. And I've actually seen materials handed out at Clean Cities workshops that say the words, "there is free money." There is even a worksheet in the DOE's Clean Cities Guidebook as to how to calculate the net cost of AFVs after factoring in all the free money available.

Now, I personally attended a Clean Cities workshop at which a grant writer exhorted officials not even to bother writing grant requests for less than a million bucks. That's how much free money is

out there.

Now, we all know, just like there's no Tooth Fairy and there's no Santa Claus, there is no free money. It's taken from someone else. It gets laundered in Washington, it gets laundered in Sacramento, and then it comes back somewhere else, not necessarily where the people who earn that money would have liked to see it go.

Now, meaning no disrespect, and I particularly appreciate Ms. Chun's remarks when she asked about the costs and, gee, how are we going to continue paying for these things. The reaction of most taxpayers is this: Just how stupid do they think we are?

They know they send lots of money to Washington, they know they don't get a heck of a lot of it back, and believe me, they'd be much happier to bet some of their hard-earned money back in cash than to have someone to DOE offer it to a city manager to pay for EV recharging stations that)) assuming there were any EVs in town at all, and assuming that they needed recharging outside their own garages)) should

by rights be financed by the shareholders of the utility companies who would profit from the sale of the electricity.

If our local governments spend their allocated clean air funds, whether they come from federal grants, DMV registration fees or any other public sources, on AFVs which will not bring them into attainment with state and federal air quality standards, they will not have the money to support programs that do work, such as scrappage or expanded public transportation alternatives. Can you honestly say that when your Clean Cities program or your fleet programs fail, you'll let us off the hook since you forced us to misspend our money in the first place?

Similarly, businesses that are compelled to purchase vehicles they can't afford and can't practically used will either give up or cut overhead and raise prices. This means there will be fewer people out there earning salaries which would enable them to pay those higher prices. And, again, when prescribed air quality standards are not met, they will suffer even more oppressive and costly regu-

lations to bring them into attainment. If corporate managers made such decisions on their own, you can bet their shareholders would oust them at the earliest opportunity. Unfortunately, since the DOE is not an elected agency, the voters have no such recourse.

Commanding the purchase of alternative fuel vehicles is akin to ordering doctors to prescribe expensive drugs that don't work while depriving them of time-honored cures that do. The disease will go uncured and both the doctor and patient will develop a healthy mistrust of government. That kind of medicine is sure to eventually kill the patient.

Just as medicines and drugs are subjected to performance testing to insure that they deliver what they promise, AFVs should be subject to the same standards before the government allows their widespread distribution to the public. When AFVs can be purchased for the same cost, refueled a the same cost, operated at the same cost and can perform the same functions with the same degree of safety as conventionally fueled vehicles without benefit of public subsidies, then and only then should the

private or public sectors take them seriously as viable fleet options.

The federal government should abandon this ill-conceived fleet mandate and never look back. If you're unable to do so, at least delay your decision for a sufficient number of years to examine the results of the many regulations already in place and to achieve a realistic estimate of exactly what the costs and benefits will be.

Thank you.

MR. RODGERS: Paul, do you have a question?

MR. McARDLE: Yeah. I just)) and quickly. I really appreciate your testimony because we in Washington also have to be concerned of taxpayers' concern on how money is spent.

I did have a couple comments regarding some of the stories you quoted, and I can't confirm them or deny them. I don't know anything about them)) you probably know more about them than I)) but I do know there are probably a number of success stories, too, that could counterbalance those, and

also there are a number of studies that will say the emissions benefits of AFVs are much greater than just one percent or two percent.

So, I think there are other studies that will kind of somewhat contradict the small benefit and say there's a larger benefit.

And number two, is on the scrappage issue, and I think that's a very good idea, where we've seen some areas that use scrappage as a way of reducing emissions because it gets off the road some of the older vehicles.

However, and this is just my personal opinion, is that in the longer term, scrappage will offer less benefits because the differential between the new car and the older car is going to get smaller because the emission standards have been ratcheted down so much, you won't have emission standards like you had in the '70s or pre-'69 when there were no emission standards.

So, I think scrappage is good now but I think in the future, that will become less viable if we're really serious about reducing emissions.

MS. MANGELS: May I respond to that,))

MR. RODGERS: Sure.

MS. MANGELS:)) since I'm up here rather than come back to rebut?

MR. RODGERS: No. Please.

MS. MANGELS: Yeah, first of all, as to the comment that there may be other studies which would, you know, contradict the ones that I've quoted, I find it interesting that when the Electric Vehicle Transportation Commission or Committee was standing up here, that you didn't say to them, well, gee, there are lots of studies that say your cars are virtually, you know, no different than the brand-new cleaner burning fuels and cleaner burning engines. Perhaps that was an oversight.

I mean, even the chairman of the Air Resources Board has been quoted in magazines and newspapers as saying that, hey, there virtually is clean. You know, we're looking at a 90 percent, I think were John Dunlap's words, improvement in the cleanliness and the pollution reduction in internal combustion engines and conventional fuels, and that

can only improve.

As to the issue of scrappage, that's the whole point. Yeah, once you get them off the road, you've solved the problem, and they'll either come out sooner due to voluntary programs or perhaps some limited incentive money which would come from tax dollars or other public sources, which is infinitely more cost-effective than overhauling everybody in the country's fleet. Or people will just normally retire them through attrition; sooner or later, they're just not going to run anymore and they won't be a problem.

So, indeed, if the new fuels, even according to, as I've said, the Air Resources Board here in California which is not known for being friendly towards conventional fuels, they want to move away from it, they've even said they're almost as clean. And they've even said, and been quoted in print, I can send you copies of the articles, that we're looking at a one percent emission reduction from our electric vehicle mandate which was extrapolated by Carnegie-Mellon and seems to bear out that, because they've said 10 percent with 100 percent market

penetration.

So, yeah, if we get the old clunkers off the road that are spewing the pollution, we will have gone an incredibly long way towards solving the problem and you won't have the mobile source problems you've had.

Additionally, if you look towards expanding public transportation and getting people out of their cars, not only will you reduce your reliance on any kind of fuel, whether it's imported or other, and you'll also be reducing congestion. And it's been often said, and it is particularly pertinent in California where we have such massive freeway jams and everybody needs a car, you can get stuck in traffic as easily in an alternative fuel vehicle as you can in a conventional one, so just rearranging the deck chairs on the traffic Titanic is not going to get you any further on that regard, so there may be other places to look.

And we are respectfully suggesting that you look at all of those and take the costs and the benefits into account.

MR. McARDLE: Thank you.

MS. CHUN: I do have a few comments,))

MS. MANGELS: Yeah.

MS. CHUN:)) just for point of clarification.

Clean Cities program overall is fuel-neutral, and even in California where EVs are probably the most significant in terms of the rest of the nation, all the Clean Cities programs really do tend to focus on whatever fuel is best for them. And there is, at the moment, a tendency for a stronger support for other fuels such as natural gas and methanol. So, I think that that may be a misperception from some of the meetings that you may have gone to.

Secondly, I think some of us have been at the meetings that have sort of discussed free money, and I just wanted to point out that a significant portion of some of that free money is in fact from the OEMs who offer rebates on their own vehicles.

MS. MANGELS: And))

MS. CHUN: Um,))

MS. MANGELS: Oh, I'm sorry.

MS. CHUN: No, no. Go ahead if you want to.

MS. MANGELS: You know, as far as the OEMs who offer the rebates, I mean, you can talk to any of them and they will say they recover them through increasing the prices of conventional cars. So, that means if you're looking at, say, in California, a 10 percent market penetration, of EVs, and that's what's mandated here, so that's why I use the example, the 90 percent of folks that don't buy them are going to paying for them through higher prices for the conventional cars they do buy. And, you know, most folks can't even afford to buy a new conventional car, let alone even a tax-subsidized version of an electric one because the price is so much different.

MS. CHUN: That sort of leads into my next point and question.

You know, there's been a lot of discussion this morning about the air quality benefits of alternative fuel vehicles, and certainly I don't want to discount that, but the point of the Department of Energy's program is really fuel displacement.

And I guess my question to you is, how should we pay for the energy security costs that we are currently paying for? How should we achieve petroleum displacement if we are not able to, you know, promote the use of alternative fuel vehicles? Would you and your organization be opposed to tax credits and some of the incentives that have been discussed earlier today?

MS. MANGELS: I'll try and take that in a variety of parts.

As far as the energy displacement goes or the fuel displacement issue goes, clearly, I think you've heard from some other folks who are more technically-oriented than I am that there's some discussion as to whether or not the problem is all that large.

But assuming for the sake of argument that it is, clearly, there's been a lot of progress in improving the bang for the buck you get out of conventional fuels. I think one of the manufacturers just came out with a statement that they were going to be making a car that has at least a 70-mile per gallon

capacity. So, as you improve the efficiency of internal combustion engines and petroleum fuels, certainly you're going to reduce, you know, the numbers of gallons you need to go as far as you would.

There is also the issue of recycling of motor oils and other oils which has been talked about here which doesn't appear to have been investigated very carefully.

Others have talked about relaxing the regulations pertaining to domestic production of other fuels.

As a free market-oriented organization, the folks in our coalition tend to believe that as market prices fluctuate to reflect the global conditions of politics and resource availability that you are concerned with, that the private sector entrepreneurs will be inspired to provide alternative fuels and alternative fuel vehicles and other alternatives to the market depending on the demand.

I think that in the '70s when you saw the prices go up during the Arab fuel embargo, there were lots of people who made a lot of money selling fuel

additives and other systems that helped people not need as much fuel, and I think that will happen again here.

Clearly, if people are worried about prices going up or availability, volatile conditions, whatever, there is going to be somebody on Wall Street that's going to say, hey, this is how we can market the product, we have the capability to do it. I mean, there's plenty of stuff out there now, and if it is appropriately marketed and if shareholders come in, are willing to invest in the development and improvement of the product and the marketing of the product, that's going to happen, I think that will take care of itself.

MR. RODGERS: Thank you very much.

MS. MANGELS: Thank you.

MR. RODGERS: Our next speaker is George Oakes.

MR. OAKES: Good afternoon, and thank you for allowing me this opportunity.

I'm George Oakes. I'm with the City of Oakland, but today I'm representing the Clean Air

Vehicle Coalition, which later was designated as a clean city for the Oakland/East Bay Area.

And currently we have approximately 400 AFVs in service and about 15 refueling stations that we brought forth in the spirit of the program, which was a demonstration program. And just very quickly, I'd like to share with you what many of our users have found in that demonstration program.

We found that, first of all, alternative fuel vehicles are expensive. Second of all, that they do not always benefit us in the form of clean air but, in fact, they do displace fuel. So, you know, the DOE's goal is at hand here.

However, as the last speaker mentioned, one thing I've come to realize is that the National Energy Policy Act and the Clean Air Act amendments have basically legislated technology change, which really drives right in the face of our historic market base driven and consumer choice driven issues that we have when we see technology, and we have many cases of that.

So, I think that that is an issue that is

going to have to be reviewed in your rulemaking issues, and whether or not the federal government should in fact legislate technological change.

And I am to submit to you that local governments and private fleets have historically participated in the alternative fuels program, and I further submit that if they hadn't, there wouldn't be one. So, you know, I think that that's already a given and it has been participated at this point and I think it will continue to be long into the future.

Therefore, I don't think quotas are the appropriate method to use. I think, first of all, quotas allow those people that provide the in product)) for example, the OEMs, an opportunity to get a monopolistic situation, and hypothetically, there's competition, but when you find that there is only a limited number, as there is today, you have no choices. And many of our acquisition choices have been put on hold or mitigated by the fact that the OEMs have decided no longer to participate in the market, so we find that's very frustrating.

Often our users must make a choice between

)) which is a difficult choice, as you might expect)) between what their customers' needs are, what their costs of those needs are and their desire to transition to alternative fuels, and all too often, they must make the choice and a decision to stay with alternative oil-base fuels.

Many of the things that I'm)) I've had written down that I will further submit in the written copy by November 5th have already been mentioned, so in sense of brevity, I will not redo those.

But I am concerned about reformulated gasoline and whether or not in fact does displace oil. I haven't seen any statistics on that, I'd like to see some of that. When I talk to Chevron and other suppliers, they do not respond. So, I'm concerned about that.

I also feel strongly that the incentive programs or the policies that are in by DOE are actually reversed. And when I say that, the target for the DOE are 8,500 pound or less GVW, and my concern is that what we find is that those are the most fuel efficient vehicles on the road today, albeit

there are significantly more of them. What we found when we did some very basic emission reduction studies and cost per tons of emissions reduced, it was very obvious that one truck tractor, 80,000 GVW, the transition to an alternative fuel significantly reduced more than even 25 and 30 light vehicles.

So, I submit to you that the incentive or other programs ought to be focused at those that have obviously the most impact, the most environmental emission. Well, not only will they have emission reductions, obviously right along with that is the fuel displacement; they get less miles per gallon in any equivalent that you want to use.

As I mentioned earlier, the three major auto manufacturers have been very slow to enter the marketplace. What we've also found is that the entrepreneurs in the business have jumped in)) some in the conversion business and some in the up-fitting business)) and we've found that many of those that started several years ago are no longer here. It is not an economically viable program at this time.

And there was comments about the dollars,

whether or not the dollars on the table should be applied toward this goal or other competing goals; for example, the Clean Water Act and others, there's other federally and locally-mandated issues, that what we find is a limited number of dollars.

So, trying to back up and say how do we get to a point where we can in fact achieve the goal of reduced oil imports, if you will, or fuel displacement, we're trying to find a method.

I think that the current philosophy of allowing anybody to participate in a clean city may be slightly misguided, and when I say that, all of us are competing for a limited number of vehicles on the market, we're competing for the same technology. And we see)) when I go to the meetings around the state and around the nation the same vendors, the same faces at these meetings, and I'm concerned that what's happening is, we're fragmenting our efforts.

And I would suggest that you concentrate efforts on those areas that are, first of all, in non-attainment for air quality, but second of all, those are normally associated with the largest population

centers as well. And within those large population centers are the infrastructure associated with the traditional fuels, but also, I submit, that you would get a faster economic payback on the)) a new infrastructure and that the)) you know, the cost to put them in and how close they are and whatnot would be far less expensive than trying to duplicate that across the United States.

I find also that we are in a global economy. As the need for fuel perhaps is lessened in the United States by manufacture providing significantly higher miles per gallon vehicles and we're in transition to alternative fuel vehicles, we're going to be competing for those same limited 45-year reserves, if you will, with every other country on the face of the earth, and I find that those costs are going to be going up significantly as we compete for those.

I would suggest that we find incentives to do what you're already talking about. One of that is to let's incentivize the displacement of imported fuels, how do we do that, and then I'll link it with

another one in just a second.

We also)) I think we have, as you mentioned in your notice, in the Clean Air Act is that we have an air quality issue and we should be attacking this simultaneously. And so the comment was made earlier about let's talk about tons of emissions reduced, the cost per ton of emissions reduced, and the $6 million, two pounds per decade was kind of very telling, and then mix that as well with, you know, millions of gallons of fuel displaced and trying to find an incentive program.

You know, I've thought about this and had many discussions about this and nobody wants to give up what they currently have, so we have to find a way to bring funds back into the thing. And I'm not a tax person or anything like that, and I find that any suggestion in today's market appears to be very regressive in nature, but I suggest that we utilize the current problem and that is the fuel itself. I strongly believe that we should tax the fuel that we use and use those funds to localize a very intensive market development and get a very rapid lessons

learned and put significant dollars, dedicated dollars to technological research and development.

And I think fuel sales are not a panacea but they're surely a)) you know, an in-game issue, the rest of this, I strongly believe, is transitional and will be. And I don't want to be)) 45 years from now, Good Lord willing, tell my children that, well, I participated in the dilution of our vital energy resources around the world.

And I also believe, as others say, that as the cost of these fuels go up, we'll find more reserve)) they mysteriously become available)) but all of that just means that we're spending other resources to do that instead of other things that we could possibly do in our economy.

So, that's kind of my comments on that. I will submit written comments back to you.

MR. RODGERS: Thank you very much.

Our next speaker is William Platz.

MR. PLATZ: I want to thank you for your time. I will be brief because I didn't prepare any formal comments.

My name is Bill Platz, and I am the chairman of the Clean Fuels Committee for the Western Propane Gas Association. I felt that I would probably be remiss if I didn't join in the parade of all the alternative fuels out here and at least making my pitch.

The propane industry is already one of the most viable alternative fuels out there. We have in California alone over 45,000 vehicles operating on propane today; that is without any free money whatsoever, that's all been capitalized by our own money.

And our customers utilize propane for one reason)) it's not necessarily because of clean air, it's because it's cheaper to run on propane. And we firmly believe as an industry that economic reality is what should be driving this, not mandates or incentives, so we come firmly down on the side of no mandates, as most of the people in this room have today.

Unfortunately, we in turn are also being affected, not necessarily by DOE requirements, but by

Clean Air Act amendment requirements, California Air Resource Board requirements. My fleet, for example, I operate a small fleet of 50 vehicles. I'm a small businessman. I have 95 percent of my vehicles currently operating on propane, but I have)) and most of those are, by the way, retrofits)) I have no way of converting or retrofitting 1996 vehicles or newer to propane.

The reason for that is mostly due to OBD2, but it's also due to the onerous requirements here in California for certification of retrofit kits. And it's my understanding that as we go along, that particular certification procedure is going to go across the country.

So, what we have is a real problem here from a retrofit standpoint of being able to provide vehicles that can operate on an alternative fuel such as propane.

Couple that with the OEM's disinterest, so to speak, in developing vehicles on alternative fuels. I will pass kudos on to Ford. They have in fact stepped up. They provided a pickup under 8500 GVW for

a six-week window this model year. There were 600 of those vehicles sold, or over 600 of those vehicles sold in that six-week period, but beyond the medium-duty vehicle that Ford is currently offering, there is no plans that we have been told in the near future to provide any other propane-powered vehicles from Ford.

In addition, GM does offer an up-fit for their medium-duty vehicle but it's questionable as to how long that's going to last.

Chrysler disavows any knowledge of their propane-powered vehicles that they have been producing in Canada for the last five years.

So, basically what we've got is, we've got a situation where the OEMs aren't going to produce these alternative fuel vehicles, at least on LPG. We're a small industry. We haven't been able to provide the capital seed money for the OEMs to produce propane vehicles, much like the natural gas folks or the methanol folks have been able to do in the past.

So, the bottom line I think for you folks, is that we need your leadership in helping us develop that market that you need so that we can displace some

of this oil that we're talking about. We need your influence on the OEMs, either to open up the OBD2 computer requirements so that our retrofit kit manufacturers can then get back into the marketplace, or to induce the OEMs to produce the vehicles themselves.

Without either one of those incentives, I really don't think we're going to get anywhere with at least LPG's contribution and, in fact, the current contribution that we have today to displace oil will be threatened.

And that's brief.

MR. RODGERS: Okay. Thank you very much.

Okay. That's our last speaker. Do we have)) excuse me. Andi, do we have anyone signed up to make clarifying remarks?

Doesn't look like it.

Yes, Greg?

MR. VLASEK: I didn't sign up but I would like to make a couple brief comments.

MR. RODGERS: Sure. Come up to the microphone, please.

MR. VLASEK: Thank you. It's a long morning. It's 20 'til 2:00, so I will be brief.

But there were a couple of things that I wanted to respond to that were raised by some of the WSPA))

THE REPORTER: Excuse me. Could you please state your name for the record?

MR. VLASEK: Oh, certainly. My name is Greg Vlasek with California Natural Gas Vehicle Coalition.

I'm always happy when Anita Mangels and I agree on something, and the kernel that I heard that we agree on is, is that DOE really needs to take a very hard look at the economics of this issue before making the recommendation to Congress.

You need to look at the economics very carefully on the alternative fuel vehicle side and the infrastructure that goes with that and the needs of that industry if it is going to develop.

The other thing you need to look at very carefully is the economics that go into the continuing support of the petroleum industry that gasoline and

diesel customers do not see. Because I think we can all agree that there are some of those costs out there. We don't agree on how much they are or how much)) to what degree that should be factored into the deal for final analysis.

I had an opportunity to review Tom Austin's data that he EPACT programs to the State of California and the analysis he did for WSPA.

It was interesting to note, and I reviewed some of my data that I accumulated during the gasoline price increases that we experienced here in California earlier this year, the cost of those increases to California consumers and to the fuel retailers, because the fuel retailers did lose about $2.7 million per day during that price hike because of the acute competition that was created. The total cost per day to consumers and fuel retailers in California was about $17.8 million per day.

If you balance that against the statistics that Mr. Austin provided, a quick calculation will show you that with 63 days of the level of price increases that we experienced here in California, in

63 days, we could have paid for the entire Federal, State Fleet and Fuel Provider program for the acquisition of vehicles.

If we were to experience over the next 15 years, say, 215 days of price increases of that magnitude, it would pay for the entire cost of those programs plus the local fleet mandate and the private fleet mandate for vehicle acquisition within 215 days. So, if we assume that we're going to have those kinds of increases any time in the next 15 years, we ought to look at those factors in the equation.

Looking at the total cost that Mr. Austin indicates, which includes not only incremental vehicle costs, but infrastructure costs and lost fuel tax revenues to the State of California, from 1993 to the year 2010, because of your proposed regulations, his figure for that was $4.6 billion. And let me see if I have my calculation here. That amount of money is represented by 263 days of the elevated gasoline and diesel price increases that we've already experienced this year.

I hope that puts it into perspective for

you and for some of the folks in the audience the amount of money that we're really talking about. It's easy to say it's going to cost)) you know, the consumer is going to get screwed by this oppressive government policy, but I think it's important to keep it in context of what consumers are paying today over which they have no choice or no control as to what fuel alternative they might have. So, I think that's valuable information.

I wanted to comment)) and again, I don't want to get into too much detail here. Many speakers raised some issues about OEM versus conversions.

My perspective on the future of alternative fuel vehicles is that conversions are not ultimately going to be viable; that OEM products that provide the emissions reduction that OEM products are capable of providing at the incremental costs that OEMs will charge should be the basis of your economic calculations, not the cost of conversions and not the emissions benefits associated with conversions. And we had a conversation)) our industry had a roundtable with Ford yesterday that I think strongly confirms

that perspective.

On the subject of bi-fuel or flex-fueled vehicles versus dedicated, I think it's clear that dedicated vehicles are really needed to have any assurance of achieving the objectives for whatever program you ultimately end up with, whether it's mandates or incentives. The track record for bi-fueled and flex-fueled vehicles, in terms of fuel consumption just is not good and we cannot make)) there is no way that I can foresee guaranteeing that bi-fueled vehicles can be relied upon to get the job done in terms of increasing alternative fuels.

With respect to the range issue for natural gas vehicles, several speakers brought that up, as did Ms. Mangels sort of generally impugn the performance of alternative fuel vehicles in general. I just wanted to say that Ford and Honda are both introducing vehicles for 1997, pickup trucks, vans, sedans that are already certified under the highway test procedures to have a range of about 300 miles. That means a real-life driving range of about 225 to 250 miles. So, we don't think that range is nearly as

much of an issue, particularly with a dedicated vehicle as it has been made out by some speakers today.

Let me conclude with one more point.

Some of the free money that I have heard about and has been represented before you here today, I would like to point out that some of that comes from something called PVEA. Particularly here in California, it's been a source of quite a bit of the alternative fuel vehicle development revenue that we've had over the past 10 years or so. It's important for people to recognize that that free money comes from settlements of antitrust violations with the petroleum industry for fleecings of the American public and their consumers that occurred in the 1970s and 1980s. So, this is not all taxpayer-funded subsidies to get this market going.

And I think I'll just leave it at that and thank you for your time.

MR. RODGERS: Thank you very much.

Do we have any other clarifying or rebuttal comments? Two? Okay.

MS. MANGELS: I'm sorry. I didn't realize we needed to sign up first for rebuttals. I'll make it really quick.

MR. RODGERS: Could you))

MS. MANGELS: I didn't think I))

MR. RODGERS: Go ahead and state your name, Anita.

MS. MANGELS: Oh. Anita Mangels, Californians Against Hidden Taxes.

I didn't think I adequately answered Ms. Chun's question when I went back to my seat, so I'd like to fill in.

I think you asked me about what would our feeling be about other incentives other than a mandate, and our position has always been and I'm sure will remain that the best incentive for any business is to be allowed to keep more of its own money through reduced taxes and a more relaxed regulatory climate so that they are free to invest in what they believe will be the best product for their customers at the most competitive price.

Now, as to other incentives, clearly there

are lots and lots of incentives available to folks who invest in property plant and equipment here in the United States, not limited to any specific industry, and although we question again the)) you know, the efficacy of having incentives as opposed to just lower tax structure to begin with, clearly, anybody who develops alternative fuels, alternative fuel vehicles is certainly welcome to and should avail themselves of the existing tax breaks that are there for any business, they don't necessarily need any of their own.

As far as the analysis that Greg just did of the cost of the recent gas price spike, surely he doesn't think that there won't be price spikes with any other kinds of fuels as we go down the road. Products fluctuate, prices fluctuate according to supply, demand and other conditions.

You might remember recently there was a huge thing)) it wasn't huge like some things, but there was a deal where cereals, breakfast cereals were going way up and there were lots of news stories about how people were not buying bran flakes because they

were too expensive, and the government wasn't stepping in and saying, my goodness, you know, people aren't getting their bran and that's not good for their health so we better start controlling the price of bran flakes.

The cereal makers said, well, wait a minute, people aren't buying our product, gee, we better reduce the prices, and they went ahead and did that.

And again, that's what happens with petroleum or any other commodity. I mean, people lose money on the fluctuating prices of orange juice. There's a worldwide market in commodities and that's what it's all about, and if alternative fuels succeed on their own merits in the marketplace, they too can join the commodities market and their prices can fluctuate.

So, it's a little disingenuous to say that, my gosh, price spikes cost, yeah. You know, I pay more for shoes sometimes than I do other times.

As far as the PVEA, I'd just like to point out that, yes, lots of the money does come from

violation escrow accounts, and I would very much like to hear folks take that into account when they start coming up with these grandiose costs related to the use of petroleum fuels which have actually done quite well for the citizens of this country and for our economy for the last hundred years even though electric vehicles have been available for that long as well.

You hear a lot about, well, what about subsidies for other industries? What about the penalties assessed on other industries and how those folks have spent a lot of their own money voluntarily and otherwise to contribute to the cleaner air climate that we're all enjoying today.

Thank you.

MR. RODGERS: Thank you.

MR. MODISETTE: Yes. I'll be very brief because I know you have some flights to catch.

MR. RODGERS: Go ahead, Mr. Modisette.

MR. MODISETTE: Dave Modisette, with the California Electric Transportation Coalition.

I just wanted to address the question that

you've asked several people today, which is, if we are going to go down the path of additional incentives, how do we pay for it? And I guess one of the things that I did include in my package to you are two studies that were done independently that looked at subsidies to the petroleum industry, and I guess that would be my suggestion as to where you should look first. The two studies are, one by Citizen Action out of Washington, D.C. and another one by the Union of Concerned Scientists.

And if you only look at the direct tax subsidies to the petroleum industry, now I'm not talking about externalities, I'm not talking about government programs, but if you look at the direct tax subsidies to the petroleum industry, the Union of Concerned Scientists came up with a little over $6 billion annually in both federal and state tax subsidies, an additional $50 billion in annual programs that benefit)) federal programs that benefit the oil industry.

And, again, I have)) I did give you copies of these but I have some more if you'd like

those.

Thank you.

MR. RODGERS: Thank you very much.

I'd like to thank everybody for your))

I'm sorry, we have one more clarifying comment?

MR. WATSON: Yes. Two minutes of quick clarifying comments, if I could.

When I drafted proposals))

THE REPORTER: Excuse me,))

MR. WATSON: Yes. Leroy Watson, with the National Biodiesel Board.

When we had drafted the proposals to discuss at this hearing, I had left our several areas that were outside the general jurisdiction of the Department of Energy, but I know that several other commenters have raised those issues and I'd like to make just a couple quick ones that are extremely important to the commercialization of biodiesel.

First of all, related to tax incentives, under EPACT, there are several general tax incentives for the purchase of alternative fueled vehicles and the creation of alternative fuel infrastructure.

Those are codified under Section 179 of the IRS Code.

Under research that I have performed with individuals of the IRS, biodiesel as an alternative fuel currently qualifies for none of those tax incentives. So, biodiesel vehicles, even neat biodiesel vehicle certified by manufacturers are ineligible to receive any of those tax incentives, as are anybody who puts in a biodiesel refueling infrastructure.

Second of all, an inquiry with the IRS, the refueling infrastructure issue, tax break is limited only to commercial infrastructure for refueling motor vehicles, and as we talked about)) and as I talked about in my presentation, one of the areas where we think for potential market penetration for alternative fuels could be in marine vessels. But unfortunately, even if biodiesel qualified as a fuel that could get tax incentives for infrastructure development, it would not qualify for commercial marine facilities.

So, those are two areas where there's a clear lack of coordination between the IRS and the DOE

programs related to the commercialization of our fuel.

The other program I wanted to just mention, and I apologize for not doing it before, and one of the other commenters had talked about it, about the Light-Duty Diesel Development program.

The Department of Energy currently has a request for proposals out for major diesel manufacturers for what they call the LE55 Light-Duty Vehicle program. LE standing for low emission, and the development of an diesel engine that gets 55 percent efficiency in its engine conversion.

Within that research program, it seems to be structured and the request for proposals is structured like many of the proposals with government in that it focuses only on the engine technology rather than on the fuel. We find these problems also dealing with EPA all the time as well; today we're going to regulate engines)) engines, engines, engines, tomorrow we'll talk about fuels)) fuels, fuels, fuels, rather than bringing the two together.

So that the Department of Energy)) and I believe that the solicitation period is still open for

proposals related to the LE55 Light-Duty Vehicle Development program that the Department is willing to cost-share is still open, but I would strongly encourage you to work with your colleagues who are managing the LE55 research program and ask them to look favorably on any proposals that might incorporate alternative fuels like biodiesel into the research and development programs for low emissions, 55 percent efficient vehicles.

MR. RODGERS: Okay. Thank you very much.

I want to thank everybody for sticking around and for making your contribution to this very important process.

Thank you.

(Whereupon, at 1:55 p.m., the hearing in the above-entitled matter was concluded.)